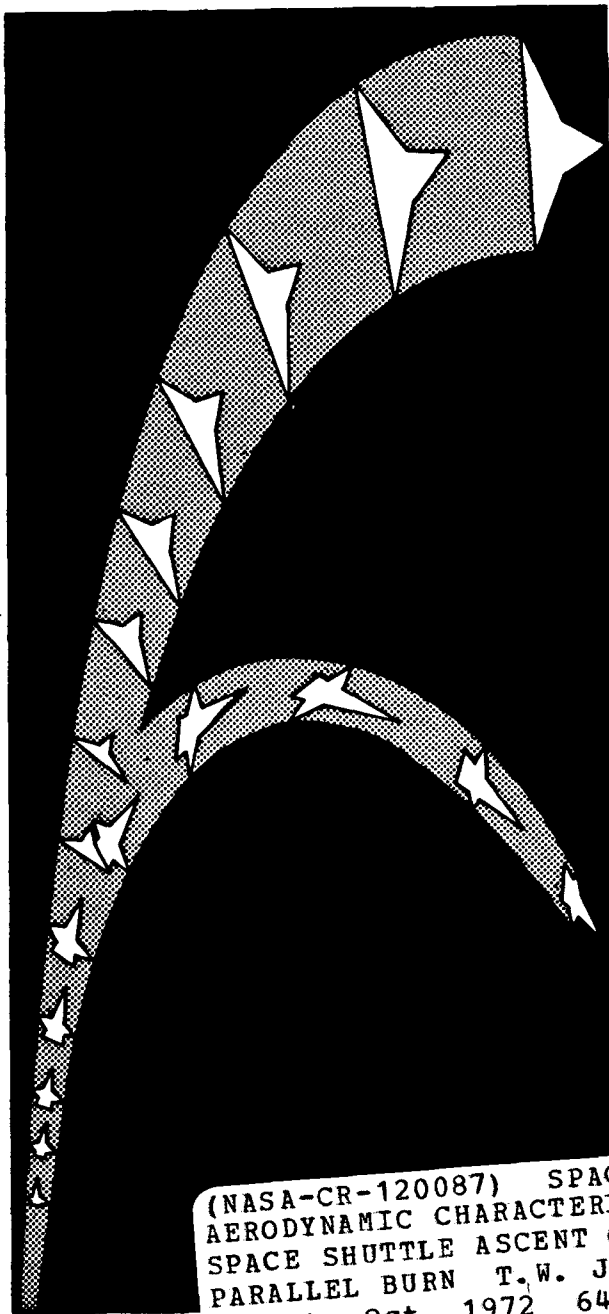


Copy #3 - Lee Lucien
mix.

DMS-DR-1230
CR-120,087
OCTOBER 1972



—SPACE SHUTTLE—

**AERODYNAMIC CHARACTERISTICS
OF VARIOUS MDAC SPACE
SHUTTLE ASCENT CONFIGUR-
ATIONS WITH PARALLEL BURN
PRESSURE-FED AND SRM BOOSTERS**

**VOLUME V
ORBITER, TANKS AND BOOSTER
ALONE CONFIGURATIONS**

by

T. W. Jarrett, MDAC

(NASA-CR-120087) SPACE SHUTTLE:
AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC
SPACE SHUTTLE ASCENT CONFIGURATIONS WITH
PARALLEL BURN T.W. Jarrett (Chrysler
Corp.) Oct. 1972 646 p

N73-11905

Unclas
48238

CSCL 22B G3/31

**MDAC 4-FOOT TRANSONIC
WIND TUNNEL**

**SADSAC SPACE SHUTTLE
AEROTHERMODYNAMIC
DATA MANAGEMENT SYSTEM**

**CONTRACT NAS8-4016
MARSHALL SPACE FLIGHT CENTER**

SPACE DIVISION  **CHRYSLER
CORPORATION**

This document should
be referenced as
NASA CR-120,087



791

NASA Series Number: S-0441

DMS-DR-1230
VOLUME V
CR-120,087
OCTOBER, 1972

SADSAC/SPACE SHUTTLE
WIND TUNNEL TEST DATA REPORT

CONFIGURATION: MDAC Pressure Fed and SRM Parallel Burn Ascent Configurations
TEST PURPOSE: To Define the Aerodynamic Characteristics of an Ascent
Configuration, the Individual Component Contribution,
Relative Orbiter and Booster Position and Interference Effects
TEST FACILITY: MDAC Aerophysics Lab. 4 Foot Trisonic Wind Tunnel
TESTING AGENCY: MDAC (W)
TEST NO. & DATE: S-222; 2 Dec. 1971 - 18 Jan. 1972, 25 Jan. 1972 - 8 Feb. 1972
FACILITY COORDINATOR: T. W. Jarrett, MDAC
PROJECT ENGINEER(S): T. W. Jarrett, MDAC

DATA MANAGEMENT SERVICES

LIAISON: B. J. Trucken
for T. L. Mulkey

DATA OPERATIONS: W. R. Morgan
W. R. Morgan

RELEASE APPROVAL: J. L. Kemp
FOR N. D. Kemp, Supervisor
Aero Thermo Data Group

CONTRACT NAS 8-4016

AMENDMENT 174

DRL 297-84a

This report has been prepared by Chrysler Corporation Space Division under a Data Management Contract to the NASA. Chrysler assumes no responsibility for the data presented herein other than its display characteristics.

FACILITY COORDINATOR & PROJECT ENGINEER:

Mr. T. W. Jarrett
McDonnell Douglas Aircraft Corporation
5301 Bolsa Avenue
Building 13, Mail Stop 14
Huntington Beach, California 92647

Phone: (213) 896-4044

SADSAC LIAISON:

Mr. T. L. Mulkey
c/o Ames Research Center
Mail Stop 226-4
Moffett Field, California 94035

Phone: (415) 965-6118

SADSAC OPERATIONS:

Mr. W. R. Morgan
Chrysler Corporation Space Division
P. O. Box 29200
Department 2780
New Orleans, Louisiana 70129

Phone: (504) 255-2304

TABLE OF CONTENTS

	<u>PAGE</u>
Introduction	2
Nomenclature	4
Configurations Investigated	7
Test Facility	9
Models & Support Equipment	9
Data Reduction	10
Tables	
1. Test Conditions	13
2. Dataset Collation Sheets	15
3. Model Component Descriptions	36
4. Plume Definitions	62
5. Index of Model Figures	64
6. Index of Data Figures	68
Figures	
Model	87
Data	145

AERODYNAMIC CHARACTERISTICS OF VARIOUS MDAC SPACE SHUTTLE
ASCENT CONFIGURATIONS WITH PARALLEL BURN PRESSURE-FED
AND SRM BOOSTERS ($M = 0.4 - 4.5$)

By

T. W. Jarrett

INTRODUCTION

Various space shuttle ascent configurations were tested in the MDAC Aerophysics 4 x 4 Ft. Trisonic Wind Tunnel. The models were 0.6 percent scale. The ascent configurations consisted of a NASA/MSO 040A orbiter in combination with various HO centerline tank and booster geometries. The purposes of the tests were to determine the aerodynamics of the ascent configurations, the aerodynamic interference between components and its effect on orbiter aerodynamics, and to determine orbiter aileron effectiveness.

The model was sting mounted with either a single internal balance (in the orbiter HO tank) or dual internal balances (one in the orbiter and one in the orbiter HO tank). With the dual balance setup, three types of runs were made; one with tank alone on the tank balance, one with tank and two attached boosters on the tank balance, and one with the tank and one booster attached on the tank balance and the other booster isolated on a separate sting but in proximity to the tank and orbiter. In addition to the 6-component force and moment balance data, base pressure data were taken for the boosters, the tank and the orbiter. Angle of attack data included α sweeps at 0° and 6° β (the latter involving a knuckle change) and β sweeps at 0° and 6° α . Through the use of a remote roll device it was usually possible to get both an α sweep and a β sweep in a single run.

INTRODUCTION (Continued)

The report consists of five volumes arranged in the following manner:

- | | |
|------------|---|
| Volume I | Ascent configurations with centerline
HO tanks T_1 and T_2 |
| Volume II | Ascent configurations with centerline
HO tank T_3 |
| Volume III | Ascent configurations with centerline
HO tank T_4 |
| Volume IV | Ascent configuration plume studies
and configuration buildup |
| Volume V | Orbiter alone, Tanks alone and
Boosters alone |

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C _p	CP	pressure coefficient; $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	Q(NSM) Q(PSF)	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
RN/L	RN/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

A _b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
c.g.		center of gravity
\bar{l}_{REF} \bar{c}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRP	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMENCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CBL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS l_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS b}$
C_l	CSL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D

ADDITIONS TO NOMENCLATURE

<u>SYMBOL</u>	<u>SADSAC SYMBOL</u>	<u>DEFINITION</u>
C_L^2	CLSQR	lift coefficient squared.
δ_a	AILRON	aileron, total aileron deflection angle, degrees, (left aileron-right aileron)/2.
δ_e	ELEVON	elevon, surface deflection angle, positive deflection, trailing edge down; degrees.
δ_r	RUDDER	rudder, surface deflection angle, positive deflection, trailing edge to the left; degrees
δ_{rf}	RUDFLR	rudder flare, split rudder deflection angle, left split rudder trailing edge left and right split rudder trailing edge right, $\delta_{rf} = (\delta_{rL} + \delta_{rR})/2$, positive deflection; degrees.

CONFIGURATIONS INVESTIGATED

The wind tunnel models were 0.6 percent scale models and included one orbiter configuration, four tank configurations, and seven booster configurations. The orbiter centerline H₂O propellant tanks included variations in diameter (302 and 325 in.), nose cone angle (10° and 15°), and axial position (120 inch travel). Of the boosters, three were solid rocket motors with the remainder being pressure fed boosters. The pressure fed boosters included variations in diameter (206 and 248 inch), nose cone angle (15° and 20°) and base flare (5° and 15°). The solid rocket motors included variations in diameter (156 and 120 in.) and base flare (0° and 15°) for the 156 in. motor.

In addition, simulated rocket plumes were tested at $M = 1.5$ and 2.2 for both pressure fed and solid rocket motor boosters. These plumes were made up of three solid aluminum bodies each of which represented an envelope of individual engine plumes for the orbiter and each booster. These envelopes were generated by taking the outermost plume boundary of the outermost engine for each component and rotating this boundary about the null thrust vector of the component (orbiter or booster). The individual engine plumes were generated at MSC with the plume boundary defined by a method of characteristics solution with the flow field originating at the exit plane, and the effects of the external flow on the boundary calculated by Newtonian impact theory.

The contours of the various plumes tested are defined in Table 4 and Figure 43 through 46. The matrix of plume testing was as follows:

<u>CONFIGURATION</u>	<u>BOOSTER PLUME</u>	<u>ORBITER PLUME</u>	<u>M_{TEST}</u>
O ₁ T ₁ B ₁	LOX/PROP M = 2.5	4 ENG. J2S M = 2.5	2.2
O ₁ T ₁ B ₁	LOX/PROP M = 1.5	3 ENG. HiPc M = 1.5	1.5
O ₁ T ₁ B ₁	LOX/PROP M = 1.5	3 ENG. HiPc M = 1.5	2.2
O ₁ T ₃ B ₆	156" SRM M = 1.5	3 ENG. HiPc M = 1.5	1.5
O ₁ T ₃ B ₆	156" SRM M = 2.2	3 ENG. HiPc M = 2.2	2.2
O ₁ T ₄ B ₇ A ₁₋₄	120" SRM M = 1.5	3 ENG. HiPc M = 1.5	1.5
O ₁ T ₄ B ₇ A ₁₋₄	120" SRM M = 2.2	3 ENG. HiPc M = 2.2	2.2

Symbols for Orbiter Configuration:

<u>Symbol</u>	<u>Description</u>
O1	W1B1E1V2R2P1M1C0
W1	Wing
B1	Body
E1	Elevon
V1	Centerline vertical (Replaces V2R2)
V2	Centerline vertical
V _{OFF}	No centerline vertical
C0	Canopy
R1	Rudder for V1
R2	Rudder for V2
P1	ACPS Engine Pod
M1	OMS Engine Pod
C1	Cupola
C2	Canopy Off (Replaces C0)

Symbols for Tanks

<u>Symbol</u>	<u>Description</u>
T ()	Tank complete
T () _a	Tank complete at an alternate position with respect to the boosters and orbiter
F1	Fin for T ₄

Symbols for Boosters:

<u>Symbol</u>	<u>Description</u>
B ()	Boosters complete
S	Skirt for booster
F ₄	Fins for B ₄
A	Thrust vectoring fuel tank for B ₇

Symbols for Plumes:

<u>Symbol</u>	<u>Description</u>
+ Plume (2.5)	3 Plumes (Orbiter + 2 Boosters) at M = 2.5
+ Plume (1.5)	3 Plumes (Orbiter + 2 Boosters) at M = 1.5
+ Plume (2.2)	3 Plumes (Orbiter + 2 Boosters) at M = 2.2

TEST FACILITY

The MDAL 4' Trisonic Wind Tunnel facility is a blowdown type operation capable of Mach numbers of 0.2 to 5.0 and Reynolds numbers from approximately 1×10^6 to 2×10^6 per inch. The subsonic and transonic Mach numbers are run in a porous wall test section which is removed for supersonic testing. The supersonic test section utilizes a two dimensional flexible plate nozzle to obtain Mach numbers 1.5 to 5.0. The models are mounted on a sting that is supported from a vertical translating strut with a vertical plane rotating pod having a pitch range of -15° to $+25^\circ$ when no offset adapters are present.

MODELS AND SUPPORT EQUIPMENT

The test models with all of their interchangeable component parts were 0.60 percent of full scale.

The orbiter model had a blended body contoured into a low delta wing. Effects of orbiter position and booster relative to the tank was investigated at two longitudinal locations on the tank (nominal and aft). The orbiter and boosters can be bolted to the tank (T1) in both nominal and aft positions as well as independently mounted from the tank. For the bolted orbiter case, the orbiter balance was inoperative and there were no force or moment data for the orbiter.

Effects of the orbiter control surfaces and control surface deflections were investigated for elevons, ailerons, and rudder with the surfaces deflected and undeflected.

Transition strips of No. 120 carborundum grit were used to insure boundary layer transition from laminar to turbulent flow. These strips were $3/32$ inches wide and were located $3/4$ inches aft of the orbiter nose, $1/2$ inch aft of the booster nose, $1/2$ inch aft of the tank nose, and at 5 percent local chord (both surfaces) on the wings, vertical tails and fins.

To achieve the required test angles of attack and sideslip two straight balance adapters were used in combination with the MDAL 6 degree sting adapter. A straight sting section positioned the model properly in the test section.

Pressure data for the orbiter, tank or the booster were obtained from base and balance cavity pressure pickups that were cantilevered off the sting. Leads for these pickups were routed externally over the model support system and into the tunnel strut. The boosters in the presence of the tank each had a base pressure pickup.

DATA REDUCTION

The data are corrected for such factors as model tares, sting bending and balance deflections, interactions, and bilinearities.

Composite Configurations

1. The orbiter data were reduced about the orbiter MRP using its reference dimensions and about the tank MRP, using orbiter reference dimensions (\bar{c} for longitudinal and b for lateral).
2. The tank data were reduced about the tank MRP using orbiter reference dimensions (\bar{c} for longitudinal and b for lateral).
3. A summation of the orbiter (tank MRP) and tank (tank MRP) data with all data corrected for angular attitudes to the tank body axes.

Orbiter Alone Configurations

1. The orbiter data were reduced about the orbiter MRP using the orbiter reference dimensions (\bar{c} for longitudinal and b for lateral).

Tank Alone Configurations

1. The tank data were reduced about the tank MRP using the orbiter reference dimensions.

Booster Alone Configurations

1. The booster data were reduced about the booster MRP using the orbiter reference dimensions.

Ascent configuration composite tank MRP data, orbiter alone data, tank alone data and booster alone data are presented in this report, with the remaining data on file and available upon request.

Reference quantities used in these data reductions are as follows:

ORBITER

<u>Quantity</u>	<u>Full Scale Dimensions (Reference only)</u>	<u>Model Dimensions</u>
Reference Area (S)	3155.3 Ft ²	16.37 In ²
Reference Span (b)	882 In.	5.292 In
Reference MAC (\bar{c})	609.5 In.	3.657 In
Moment Reference Points		See Figures 13 & 14

DATA REDUCTION (CONTINUED)

Areas:

Total Base (A_B)	298 Ft ²	1.546 In ²
----------------------	---------------------	-----------------------

TANK

<u>Quantity</u>	<u>Full Scale Dimensions</u> <u>(Reference only)</u>	<u>Model Dimensions</u>
Reference Area (S)	3155.3 Ft ²	16.37 in ²
Reference Length (b)	882 In.	5.292 in.
Reference Length (\bar{c})	609.5 In.	3.657 in.
Moment Reference Points		See Figures 13 & 15

Areas:

Total Base (A_B)/Tank	T1 - 422 Ft ²	2.125 In ²
	T2 - 422 Ft ²	2.125 In ²
	T3 - 518 Ft ²	2.613 In ²
	T4 - 537 Ft ²	2.785 In ²

BOOSTER

<u>Quantity</u>	<u>Full Scale Dimensions</u> <u>(Reference only)</u>	<u>Model Dimensions</u>
Reference Area (S)	3155.3 ft ²	16.37 in ²
Reference Length (b)	882 in.	5.292 in.
Reference Length (\bar{c})	609.5 in.	3.657 in.
Moment Reference Points		See Figures 13 & 16 through 19

DATA REDUCTION (CONTINUED)

Areas:

Total Base (A_B)/Booster	B1	-	901.0 Ft^2	4.539 In^2
	B1S1	-	2125 Ft^2	11.0093 In^2
	B1S2	-	4785 Ft^2	24.7887 In^2
	B2	-	137.8 Ft^2	0.694 In^2
	B2S	-	428 Ft^2	2.158 In^2
	B3	-	902 Ft^2	4.545 In^2
	B4	-	568 Ft^2	2.865 In^2
	B5	-	557 Ft^2	2.883 In^2
	B6	-	95.4 Ft^2	0.481 In^2
	B7	-	79.3 Ft^2	0.408 In^2

TABLE 1.

TEST CONDITIONS
TEST S-222

MACH NUMBER	REYNOLDS NUMBER per (inch)	DYNAMIC PRESSURE (pounds/sq. inch)	STAGNATION TEMPERATURE (degrees Fahrenheit)
0.4	0.50×10^6	3.3	53
0.6	0.83×10^6	7.6	47
0.7	0.74×10^6	7.8	68
0.9	0.79×10^6	10.0	50
0.95	0.67×10^6	8.8	53
1.05	0.69×10^6	9.5	50
1.1	0.69×10^6	9.8	52
1.5	0.63×10^6	10.0	55
2.2	0.63×10^6	9.9	68
2.25	0.94×10^6	14.0	52
2.5	0.66×10^6	10.3	91
4.5	1.15×10^6	10.6	120

BALANCE UTILIZED: See Listing on next page.

CAPACITY:

ACCURACY:

COEFFICIENT
TOLERANCE:

NF _____
 SF _____
 AF _____
 PM _____
 YM _____
 RM _____

COMMENTS:

TABLE 1.

TEST CONDITIONS (CONTINUED)

BALANCES UTILIZED

Several balances were required during the test. Listed below are the balances used, their capacity and the corresponding tunnel runs which apply to each.

<u>BALANCES</u>					
Runs	<u>Orbiter</u>			<u>Tank Balance</u>	
	3/4" D.			1" D.	
Runs 1-10	#7 DAL			#13 NAR	
Runs 11-113	-			#13 NAR	
Runs 114-184	#5 DAL			-	
Runs 185-197	-			#13 NAR	
Runs 198-270	#58 DAL			#13 NAR	
Runs 271-420	#58 DAL			#11 DAL	
Runs 421-424	-			#11 DAL	
Runs 425-459	-			#11 DAL	
Runs 460-474	-			#11 DAL	
Runs 475-569	#58 DAL			#11 DAL	
Runs 570-646	-			#11 DAL	

Balance	MK. 31A	MK. 2A	MK. 10	MK. 7	MK. 3C
	3/4" D. #7 DAL	3/4" D. #5 DAL	3/4" D. #58 DAL	1" D. #13 NAR	1" D. #11 DAL
<u>Gage</u>	<u>Capacity</u>				
NF (each) 2 gages	100 lb.	100 lb.	100 lb.	500 lb.	250 lb.
SF (each) 2 gages	100 lb.	50 lb.	100 lb.	300 lb.	250 lb.
AF	80 lb.	25 lb.	50 lb.	500 lb.	150 lb.
RM	20 in.lb.	60 in.lb.	40 in.lb.	150 in.lb.	150 in.lb.

TABLE 2. TEST S-2222 ORBITER @ ORBITER MRC

DATA SET COLLATION SHEET

(Φ1) ORBITER ISOLATED ON
SEPARATE BALANCE.
(Bx) BOOSTER ISOLATED
W/THOUT W. BALANCE.

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS									
		A	B	SA	SE	SR			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
RD7101	(Φ1) T1 B1	A	0	0	0	0		3		396	395			394				
102		0	D	0	0	0		3		396	395			394				
103		A	0	0	0	0		2										
104		A	0	20	0	0		6		373	371			370	254	253		266
105	(Φ1) T1 B1L (B1R)	A	0	0	0	0		4			374			375		258		267
106		0	D	0	0	0		2			374			375				
107		A	0	0	0	0		2								215		245
108	(Φ1) T1 (B1L) B1R	A	0	0	0	0		2								221		244
109	(Φ1) T1 B2	A	0	0	0	0		2						205	255			
110	(Φ1) T1 B2L (B2R)	A	0	0	0	0		4			387			388	259			268
111		0	D	0	0	0		2			387			388				
112		A	0	0	0	0		2								227		242
113	(Φ1) T1 (B2L) B2R	A	0	0	0	0		2								226		243
114	(Φ1) T1 B3	A	0	0	0	0		6		391	390			389	255	256		264
115		0	D	0	0	0		3		391	390			389				
116		A	0	0	0	0		3							202	228		239
117	(Φ1) T1 B3L (B3R)	A	0	0	0	0		4			392			393		257		265
118		0	D	0	0	0		2			392			393				
119		A	0	0	0	0		2								230		241
120	(Φ1) T1 (B3L) B3R	A	0	0	0	0		2								229		240

COEFFICIENTS:

A or B
SCHEDULES

A = -10° → 10°
B = 10° → -10°
C = -10° → 20°
D = 0° → -0°

BX - BOTH LEFT & RIGHT BOOSTERS
BXL - LEFT BOOSTER
BXR - RIGHT BOOSTER

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS											
		A	B	SA	SE	SR			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5		
RD7121	(ϕ 1) T1 B4	A	0	0	0	0		6		378	377			376	269	273		276		
122		A	0	0	0	0		1							272					
123		0	D	0	0	0		3		378	377			376						
124		A	6	0	0	0		3						201	231			238		
125	(ϕ 1) T1 B4L (B4R)	A	0	0	0	0		4						379		274		275		
126		A	6	0	0	0		2						379		233		236		
127		0	D	0	0	0		2			380									
128	(ϕ 1) T1 (B4L) B4R	A	6	0	0	0		2								232		237		
129	(ϕ 1) T1 B5	A	6	0	0	0		2							249			248		
130		A	6	0	0	0		1							208					
131	(ϕ 1) T1 B5L (B5R)	A	6	0	0	0		1										246		
132	(ϕ 1) T1 (B5L) B5R	A	6	0	0	0		1										247		
133	(ϕ 1 V1) T1 B5	A	0	0	0	0		6		384	382			383	250	252		251		
134		0	D	0	0	0		3		384	382			383						
135		A	6	0	0	0		1								218				
136		0	A	0	0	0		1								220				
137	(ϕ 1 V1) T1 B5L (B5R)	A	0	0	0	0		4			386			385		261		262		
138		0	D	0	0	0		2			386			385						
139		A	6	0	0	0		1								216				
140	(ϕ 1 V1) T1 (B5L) B5R	A	6	0	0	0		1								217				

COEFFICIENTS: IDPVAR(1) IDPVAR(2) INDV

 2 OF 3
 SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION			NO. of RUNS	MACH NUMBERS									
		a	b	SA	SE	SR		0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
RD7141	(ϕ 1V1) T1	A	0	0	0	0	3		399	398			397				
142		0	D	0	0	0	3		399	398			397				
143		A	0	20	0	0	3		401	402			400				
144		0	D	20	0	0	3		401	402			400				
145		A	0	0	0	10	3		405	404			403				
146		0	D	0	0	10	3		405	404			403				
147	(ϕ 1) T1	A	0	0	0	0	8	360	361	362	363	364	365		260		263
148		0	D	0	0	0	6	360	361	362	363	364	365				
149		A	6	0	0	0	2								234		235
150	(ϕ 1) T2 B1	A	0	0	0	0	3		415	416			417				
151		0	D	0	0	0	3		415	416			417				
152		A	6	0	0	0	2							207	223		
153	(ϕ 1) T2 B1L (B1R)	A	6	0	0	0	1								214		
154	(ϕ 1) T2 B2	A	6	0	0	0	1							204			
155	(ϕ 1) T2 B3	A	6	0	0	0	1							203			
156	(ϕ 1) T2 B4	A	0	0	0	0	3		420	419			418				
157		0	D	0	0	0	3		420	419			418				
158		A	6	0	0	0	1							200			
159	(ϕ 1) T2 (B1L) B1R	A	6	0	0	0	1							222			
160	(ϕ 1V1) T2 B5	A	0	0	0	0	3		408	407			406				

COEFFICIENTS: _____ IDPVAR(1) IDPVAR(2) INDV

a or b
 SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS											
		A	B	5A	5E	5R			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5		
RP7161	(ϕ 1V1) T2 B5	0	D	0	0	0		3		408	407			406						
162	(ϕ 1V1) T2A B5	A	0	0	0	0		3		409	410			411						
163	\downarrow	0	D	0	0	0		3		409	410			411						
164	(ϕ 1) T2A B1	0	A	0	0	0		1								211				
165	\downarrow	A	D	0	0	0		3		414	413			412						
166	\downarrow	0	D	0	0	0		3		414	413			412						
167	\downarrow	A	0	0	0	0		2						209	210					
168	(ϕ 1) T2A B1L (B1R)	A	0	0	0	0		1							213					
169	(ϕ 1) T2A (B1L) B1R	A	0	0	0	0		1							212					
170	(ϕ 1) T2	A	0	0	0	0		2		367				366						
171	\downarrow	0	D	0	0	0		2		367				366						
172	(ϕ 1) T2A	A	0	0	0	0		2		368				369						
173	\downarrow	0	D	0	0	0		2		368				369						
174	(ϕ 1) T3 B1	A	0	0	0	0		6		333	329			331	277	278		279		
175	\downarrow	0	A	0	0	0		3		334	330			332						
176	\downarrow	A	0	0	0	0		3						309	305		310			
177	(ϕ 1) T3 B1L (B1R)	A	0	0	0	0		4						336		281	280			
178	\downarrow	0	D	0	0	0		2						336						
179	\downarrow	A	0	0	0	0		2							312		311			
180	(ϕ 1) T3 (B1L) B1R	A	0	0	0	0		4		328				327	313		314			

COEFFICIENTS: \downarrow IDPVAR(1) IDPVAR(2) NDV

a or b
 SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION			NO. OF RUNS	NACH NUMBERS									
		α	β	δA	δE	δR		0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
R02181	(ϕ 1) T3 (B1L) B1R	A	6	0	0	0	1								326		
182	(ϕ 1) T3 B2	A	0	0	0	0	5		350	351					296		297
183	\downarrow	0	D	0	0	0	3		350	351							
184	(ϕ 1) T3 B2L (B2R)	A	0	0	0	0	4		354	354					299		298
185	\downarrow	0	D	0	0	0	2			354							
186	\downarrow	A	6	0	0	0	2								300		301
187	(ϕ 1) T3 (B2L) B2R	A	6	0	0	0	2								303		302
188	(ϕ 1) T3 B3	A	0	0	0	0	6		356	355					286		285
189	\downarrow	0	D	0	0	0	3		356	355							
190	\downarrow	A	6	0	0	0	2							317	318		
191	(ϕ 1) T3 B3L (B3R)	A	0	0	0	0	4		359						285		284
192	\downarrow	0	D	0	0	0	2		359								
193	\downarrow	A	6	0	0	0	1								319		
194	(ϕ 1) T3 (B3L) B3R	A	6	0	0	0	1								320		
195	(ϕ 1) T3 B4	A	0	0	0	0	1							1			
196	\downarrow	C	A	0	0	0	1							2			
197	\downarrow	A	0	20	0	0	1							3			
198	\downarrow	A	0	0	0	10	2							4	8		
199	(ϕ 1) T3 B4L (B4R)	A	0	0	0	0	4		338						282		283
1A1	\downarrow	0	D	0	0	0	2		338								

COEFFICIENTS: α or β SCHEDULES \geq IDPVAR(1) IDPVAR(2) NDV

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS											
		A	B	SA	SE	SR			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5		
RD71A2	(ϕ 1) T3 B4L (B4R)	A	C	0	0	0		2												
1A3	(ϕ 1) T3 (B4L) B4R	A	C	0	0	0		2												
1A4	(ϕ 1) T3 B4 T4	A	0	0	0	0		2							6	7				
1A5	(ϕ 1) T3 B5	A	0	0	0	0		6		341	334			340	292	291		293		
1A6	\downarrow	C	D	0	0	0		3		341	339			340						
1A7	\downarrow	A	C	0	0	0		2						322	321					
1A8	(ϕ 1) T3 B5L (B5R)	A	0	0	0	0		4		342				343		295		294		
1A9	\downarrow	0	D	0	0	0		2		342				343						
1B1	\downarrow	A	C	0	0	0		1								324				
1B2	(ϕ 1) T3 (B5L) B5R	A	C	0	0	0		1								325				
1B3	(ϕ 1) T3	A	0	0	0	0		8	349	348	347	346	345	344		290		289		
1B4	\downarrow	0	D	0	0	0		6	349	348	347	346	345	344						
1B5	\downarrow	A	C	0	0	0		2								316		315		
1B6	(ϕ 1) T1 B5	0	D	0	0	0		3							558	563		566		
1B7	(ϕ 1) T1	A	0	20	0	0		3							557	562		567		
1B8	\downarrow	0	D	20	0	0		3							557	562		567		
1B9	(ϕ 1) T1 T2 B5	A	0	0	0	0		3							559	564		565		
1C1	(ϕ 1) T1 B6	A	0	0	0	0		2		496					556					
1C2	\downarrow	0	D	0	0	0		2		496					556					
1C3	\downarrow	A	0	20	0	0		6		495	494			493	555	554		569		

COEFFICIENTS: α or β IDPVAR(1) IDPVAR(2) INDV

SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. OF RUNS	NACH NUMBERS											
		A	B	SA	SE	SR			0.4	0.6	0.90	0.95	1.05	1.1	1.5	2.2	2.25	4.5		
RD71C4	(Φ1) T1B6	0	D	20	0	0		6		495	494			493	555	554		569		
1C5																				
1C6	(Φ1V1) T1B5	A	C	0	0	0		3							558	563		566		
1C7	(Φ1) T4 B7A1-4	A	0	0	0	0		6		477	476			475	544	542		539		
1C8		0	D	0	0	0		6		477	476			475	544	542		539		
1C9		A	6	0	0	0		6		506	507			504	517	520		527		
1D1		A	0	20	0	0		6		478	479			480	550	543		538		
1D2		0	D	20	0	0		6		478	479			480	550	543		538		
1D3		A	6	20	0	0		6		511	508			509	516	521		526		
1D4		A	0	0	0	10		6		483	482			481	551	544		537		
1D5		0	D	0	0	10		6		483	482			481	551	544		537		
1D6	Y	A	6	0	0	10		6		512	513			514	515	522		525		
1D7	(Φ1) T4 B7-4	A	0	0	0	0		3		489	488			487						
1D8	Y	0	D	0	0	0		3		489	488			487						
1D9	(Φ1) T4	A	0	0	0	0		6		490	491			492	548	547		536		
1E1		0	D	0	0	0		6		490	491			492	548	547		536		
1E2		E	0	0	0	0		1										534		
1E3	Y	E	6	0	0	0		1										531		
1E4	(Φ1) T4 B7A1-5	A	0	0	0	0		6		484	485			486	552	545		540		
1E5	Y	0	D	0	0	0		6		484	485			486	552	545		540		

COEFFICIENTS: $F = -10^6 / 30^0$ IDPVAR(1) IDPVAR(2) INDV

a or B
 SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

TANK & BOOSTERS @ TANK MRC

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCUD.		CONTROL DEFLECTION				NO. of RUNS	MACH NUMBERS									
		α	β															
RD7201	NOTE: SAME AS																	
202	DATA SETS																	
203	RD71XX																	
204																		
205																		
206																		
207																		
208																		
209																		
210																		
211																		
212																		
213																		
214																		
215																		
216																		
217																		
218																		
219																		
220																		

COEFFICIENTS: CN CY CA CAF CBL CLM CLN CLY 1 43 49 55 61 67 7576

α or β
SCHEDULES

IDPVAR(1) IDPVAR(2) NDV

TABLE 2. TEST S-2.2 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST

☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHID.		CONTROL DEFLECTION		NO. OF RUNS	MACH NUMBERS									
		α	β													
RD7301	NOTE: SAME AS															
302	DATA SETS															
303	RD71XX															
304																
305																
306																
307																
308																
309																
310																
311																
312																
313																
314																
315																
316																
317																
318																
319																
320																

1 7 13 19 25 31 37 43 49 55 61 67 7576
 CN ICY CA CAF ICB CLM CYN MACH ALPHA BETA 7

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

α or β

SCHEDULES

☐ PRETEST
☒ POSTTEST

25

IDPVAR(1) IDPVAR(2) NDV

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

COMPOSITE @ TANK MRC

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCUD.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS											
		α	β	δA	δE	δR			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5		
RD7501	$\phi 171 B1$	A	0	0	0	0	0	7			77	78			79	16	11	421	21	
502		A	6	0	0	0	0	6			95	94			93	25	26		33	
503		A	6	0	0	0	0	1								197				
504		0	B	0	0	0	0	4			77	78				16	11			
505		0	D	0	0	0	0	1									421			
506		0	A	0	0	0	0	1						80						
507	$\phi 171 B1 + Rume(2.5)$	A	0	0	0	0	0	2								185	422			
508		A	6	0	0	0	0	1								196				
509		A	0	20	0	0	0	2								186	423			
510		A	0	0	0	0	10	2								187	424			
511		0	D	0	0	0	0	1								422				
512		0	D	20	0	0	0	1								423				
513		0	D	0	0	0	10	1								424				
514	$\phi 171 B2$	A	0	0	0	0	0	6			84	85			86	15	12		23	
515		A	6	0	0	0	0	6			87	88			89	24	27		32	
516	$\phi 171 B2S$	A	0	0	0	0	0	5			83	82			81	14	13			
517		A	6	0	0	0	0	6			92	91			90	28	29		31	
518	$\phi 173 B2$	A	0	0	0	0	0	1												
519		A	6	0	0	0	0	3								48	39		38	
520	$\phi 173 B4$	A	0	0	0	0	0	6			71	72			73	51	56		59	

COEFFICIENTS:

 α or β

SCHEDULES

IDPVAR(1) IDPVAR(2) IDV

MACH ALPHA BETA

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. of RUNS	MACH NUMBERS									
		A	B	SA	SE	SR			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
R07521	φ1 T3 B4	0	A	0	0	0	0	6		71	72			73	51	56		60
522		A	C	0	0	0	0	6		99	100			101	46	42		35
523		C	B	0	0	0	0	6		104	103			102	45	43		36
524		A	0	20	0	0	0	6		69	67			68	53	54		61
525		A	0	0	0	0	10	6		70	64			63	52	55		62
526	φ1 T3 B4 F4	A	0	0	0	0	0	6		76	75			74	50	57		58
527	↓	A	C	0	0	0	0	6		98	97			96	47	40		37
528	φ1 T1 B1	A	0	0	0	0	0	2							425	431		
529		0	D	0	0	0	0	2							425	431		
530		A	0	20	0	0	0	2							426	432		
531		0	D	20	0	0	0	2							426	432		
532		A	0	10	0	0	0	1							427			
533		0	D	10	0	0	0	1							427			
534		A	0	-10	0	0	0	1							428			
535		0	D	-10	0	0	0	1							428			
536		A	0	0	0	10	10	2							429	430		
537		0	D	0	0	10	10	2							429	430		
538	φ1 T1 B1 + PLUME (1.5)	A	0	0	0	0	0	2							434	437		
539		0	D	0	0	0	0	2							434	437		
540		A	0	20	0	0	0	2							433	438		

1 7 13 19 25 31 37 43 49 55 61 67 7576

COEFFICIENTS: IDPVAR(1) IDPVAR(2) INDV

a or b
SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION			NO. OF RUNS	MACH NUMBERS									
		α	R	SA	SE	SR		0.4	0.6	0.8	0.95	1.05	1.1	1.5	2.2	2.25	4.5
RD7541	$\phi 171B1 + P_{LINE} (1.5)$	0	D	20	0	0	2							433	438		
542		A	0	0	0	10	2							435	436		
543	\downarrow	0	D	0	0	10	2							435	436		
544	T3B2	A	0	-	-	-	2							442	439		
545	\downarrow	0	D	-	-	-	2							442	437		
546	T3B5	A	0	-	-	-	2							446	440		
547	\downarrow	0	D	-	-	-	2							446	440		
548	$\phi 173B6$	A	0	0	0	0	2							443	448		
549		0	D	0	0	0	2							443	448		
550		A	0	20	0	0	2							444	447		
551		0	D	20	0	0	2							444	447		
552		A	0	0	0	10	2							445	449		
553		0	D	0	0	10	2							445	449		
554		A	0	0	0	10	1							446			
555	\downarrow	0	D	0	0	10	1							446			
556	$\phi 173B6 + P_{LINE} (1.5)$	A	0	0	0	0	1							455			
557		0	D	0	0	0	1							455			
558		A	0	20	0	0	1							454			
559		0	D	20	0	0	1							454			
560	\downarrow	A	0	0	0	10	1							453			

1	7	13	19	25	31	37	43	49	55	61	67	7576
---	---	----	----	----	----	----	----	----	----	----	----	------

COEFFICIENTS: _____ IDPVAR(1) IDPVAR(2) NDV

a or b
SCHEDULES

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHD.		CONTROL DEFLECTION				NO. of RUNS	MACH NUMBERS									
		α	β	δA	δE	δR			0.4	0.6	0.90	0.95	1.05	1.1	1.5	2.2	2.25	4.5
RD7561	$\phi 17386 + P_{ume}(1.5)$	0	D	0	0	10		1							453			
562	$\phi 17386 + P_{ume}(2.2)$	A	0	0	0	0		1								450		
563		0	D	0	0	0		1								450		
564		A	0	20	0	0		1								451		
565		0	D	20	0	0		1								451		
566		A	0	0	0	10		1								452		
567		0	D	0	0	10		1								452		
568	T185	A	0	-	-	-		2							452	458		
569		0	D	-	-	-		2							457	458		
570	T186	A	0	-	-	-		6		471	470			469	456	459		605
571		0	D	-	-	-		6		471	470			469	456	459		605
572	$\phi 1748741-4$	A	0	0	0	0		4			460			461	598	572		
573		0	D	0	0	0		4			460			461	598	572		
574	$\phi 1748741-4 + P_{ume}(1.5)$	A	0	0	0	0		1							586			
575		0	D	0	0	0		1							586			
576		A	0	20	0	0		1							588			
577		0	D	20	0	0		1							588			
578		A	0	0	0	10		1							587			
579		0	D	0	0	10		1							587			
580	$\phi 1748741-4 + P_{ume}(2.2)$	A	0	0	0	0		1								577		

COEFFICIENTS:

IDPVAR(1) IDPVAR(2) NDV

 α or β
 SCHEDULES

29

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHID.		CONTROL DEFLECTION				NO. OF RUNS	MACH NUMBERS									
		a	R	SA	SE	SR	SF		0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
RD7581	φ174B7A1-4+Pume(2.2)	C	D	0	0	0	0	0	1									
582		A	0	20	0	0	0	0	1									
583		C	D	20	0	0	0	0	1									
584		A	0	0	0	0	10	0	1									
585		C	D	0	0	0	10	0	1									
586	φ174F1B7A1-4	A	0	0	0	0	0	0	2									
587		C	D	0	0	0	0	0	2									
588	74 B7A1-4	A	0	-	-	-	-	-	6									
589		C	D	-	-	-	-	-	6									
590	74F1B7A1-4	A	0	-	-	-	-	-	4									
591		C	D	-	-	-	-	-	4									
592	φ1V174B7A1-4	A	0	0	0	0	0	0	2									
593		C	D	0	0	0	0	0	2									
594		A	0	0	0	0	10	0	2									
595		C	D	0	0	0	10	0	2									
596		A	0	0	0	0	20	2										
597		C	D	0	0	0	0	20	2									
598		A	0	0	0	0	10	20	2									
599		C	D	0	0	0	10	20	2									
5A1	φ1V174B7A1-4+Pume(1.5)A	C	D	0	0	0	0	0	1									

COEFFICIENTS:

a or b

SCHEDULES

IDPVAR(1) IDPVAR(2) NDV

*830-528

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONTINUED)

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHID.		CONTROL DEFLECTION					NO. of RUNS	MACH NUMBERS									
		a	B	SA	SE	SR	SRE			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
R075A2	01V174B7A1-4+Pume(1.50)	0	D	0	0	0	0	0	1							582			
5A3		A	0	0	0	0	10	0	1							583			
5A4		0	D	0	0	0	10	0	1							583			
5A5		A	0	0	0	0	0	20	1							585			
5A6		0	D	0	0	0	0	20	1							585			
5A7		A	0	0	0	0	10	20	1							584			
5A8		0	D	0	0	0	10	20	1							584			
5B1	01V174B7A1-4+Pume(2.2)	A	0	0	0	0	0	0	1							581			
5B2		0	D	0	0	0	0	0	1							581			
5B3		A	0	0	0	0	10	0	1							580			
5B4		0	D	0	0	0	10	0	1							580			
5B5		A	0	0	0	0	0	20	1							578			
5B6		0	D	0	0	0	0	20	1							578			
5B7		A	0	0	0	0	10	20	1							579			
5B8		0	D	0	0	0	10	20	1							579			

COEFFICIENTS: IDPVAR(1) IDPVAR(2) NDV

a or b
SCHEDULES

TABLE 2. TEST S-222

DATA SET COLLATION SHEET (CONTINUED)

RD76xx TANK @ TANK MRC
RD77xx ORBITER @ ORBITER MRC

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCHID.		CONTROL DEFLECTION				NO. of RUNS	MACH NUMBERS									
		α	β	δA	δE	δR			0.4	0.6	0.9	0.95	1.05	1.1	1.5	2.2	2.25	4.5
RD7601	T1	A	0	-	-	-		4			105			107		190		193
602	T2	A	0	-	-	-		4		109				108		191		192
603	T3	A	0	-	-	-		4		110				111		189		194
604	T4	A	0	-	-	-		6		466	467			468	601	574		603
RD7701	ϕ_1	C	0	0	0	0		6		126	127			128	181	180		182
702	\downarrow	C	6	0	0	0		6		155	154			153	156	157		165
703	\downarrow	C	0	0	0	10		4		131	130			129		179		
704	ϕ_{1V1}	C	0	0	0	0		3			139			140		175		
705	\downarrow	C	6	0	0	0		3			146			145		160		
706	\downarrow	C	0	0	0	10		1								178		
707	ϕ_{1V4FF}	C	0	0	0	-		3			142			141		174		
708	\downarrow	C	6	0	0	-		3			143			144		161		
709	ϕ_{1C1}	C	0	0	0	0		5		132	133			134		177		183
710	\downarrow	C	6	0	0	0		5		152	151			150		158		163
711	ϕ_{1C2}	C	0	0	0	0		5		137	136			135		176		184
712	\downarrow	C	6	0	0	0		5		149	147			148		159		164

1	7	13	19	25	31	37	43	49	55	61	67	7576
CN	CX	CA	CAF	CBZ	CLN	CYN				MACH	ALPHA	BETA
										IDPVAR(1)	IDPVAR(2)	NDV

COEFFICIENTS:

a or b

SCHEDULES

☐ PRETEST
☒ POSTTEST

33

IDPVAR(1)	IDPVAR(2)	NDV
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

TABLE 2. TEST S-222 DATA SET COLLATION SHEET (CONCLUDED)

RD79XX BOOSTER @ BOOSTER MRC YAW PLANE
 RD79AX BOOSTER @ TANK T1 MRC YAW PLANE
 RD79BX BOOSTER @ TANK T3 MRC YAW PLANE

☐ PRETEST
☒ POSTTEST

DATA SET IDENTIFIER	CONFIGURATION	SCUD.		CONTROL	DEFLECTION				NO. of RUNS	MACH NUMBERS									
		a	B		SD						0.9	1.1	2.2	4.5					
RD7901	B1	0	A	—					4	117	116	170	169						
902	B2	0	A	—					4	120	121	172	166						
903	B2S	0	A	—					4	123	122	173	167						
904	B3	0	A	—					4	119	118	171	168						
905	B4	0	A	—					4	113	112	188	195						
9A1	B1	0	A	—					4	117	116	170	169						
9A2	B2	0	A	—					4	120	121	172	166						
9A3	B2S	0	A	—					4	123	122	173	167						
9A4	B3	0	A	—					4	119	118	171	168						
9A5	B4	0	A	—					4	113	112	188	195						
9B1	B1	0	A	—					4	117	116	170	169						
9B2	B2	0	A	—					4	120	121	172	166						
9B3	B2S	0	A	—					4	123	122	173	167						
9B4	B3	0	A	—					4	119	118	171	168						
9B5	B4	0	A	—					4	113	112	188	195						

1	7	13	19	25	31	37	43	49	55	61	67	75
CN	CY	CA	CPE	ICBL	CLM	CYN				MACH	BETA	7

1 7 13 19 25 31 37 43 49 55 61 67 7576
 CN CY CA CAF CBL CLM CYN MACH BETA 7
 COEFFICIENTS: IDPVAR(1) IDPVAR(2) IDV

a or b
 SCHEDULES

TABLE 3. MODEL COMPONENT DESCRIPTIONS

MODEL COMPONENT: BODY - B₁ , B₂GENERAL DESCRIPTION: 040A Orbiter BodyB₁ INCLUDES CANOPYB₂ WITHOUT CANOPYDRAWING NUMBER: JLP SDD 9-24-71DIMENSIONS:FULL-SCALEMODEL SCALE

Length, inch

1315.7.89

Max. Width, inch

204.1.224

Max. Depth , inch

238.1.427

Fineness Ratio

7.077.07

Areas, inch

Max. Cross-Sectional

306.2 ft²1.590 in.²

Planform

1676. ft²8.68 in.²

Wetted

6530. ft²33.8 in.²

Base

298. ft²1.546 in.²

TABLE 3. (CONTINUED)

MODEL COMPONENT: WING, W1GENERAL DESCRIPTION: 040A Orbiter clipped delta wing

DRAWING NUMBER:

JLP SDD 9-24-71DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA, INCLUDES ELEVONS

Area		
Planform	3155.3 ft ²	16.37 in. ²
Wetted	5360. ft ²	27.8 in. ²
Span (equivalent), inch	882.	5.292
Aspect Ratio	1.712	1.712
Rate of Taper	--	--
Taper Ratio	.1486	.1486
Diehedral Angle, degrees	7.0	7.0
Incidence Angle, degrees	1.5	1.5
Aerodynamic Twist, degrees	0	0
Toe-In Angle	--	--
Cant Angle	--	--
Sweep Back Angles, degrees		
Leading Edge	60.	60.
Trailing Edge	0	0
0.25 Element Line	52.4	52.4
Chords: inch		
Root (Wing Sta. 0.0)	897.	5.38
Tip, (equivalent) (Y = 441)	133.3	.800
MAC	609.5	3.657
Fus. Sta. of .25 MAC	X 1057.5	6.36
W.P. of .25 MAC	Z 302.3	1.812
B.L. of .25 MAC	Y 165.7	.996
Airfoil Section		
Root	NACA 0008-64	NACA 0008-64
Tip	NACA 0008-64	NACA 0008-64

EXPOSED DATA, INCLUDES ELEVONS

Area	2010. ft ²	14.45 in. ²
Span, (equivalent), inch	678.	4.07
Aspect Ratio	1.590	1.590
Taper Ratio	.1850	.1850
Chords, inch		
Root (Y102)	720.	4.32
Tip (Y441)	133.3	.800
MAC	494.	2.97
Fus. Sta. of .25 MAC	X 1145.5	6.87
W.P. of .25 MAC	Z 308.1	1.87
B.L. of .25 MAC	Y 232.8	1.397

TABLE 3. (CONTINUED)

MODEL COMPONENT: ELEVONSGENERAL DESCRIPTION: _____

_____DRAWING NUMBER:JLP SDD 9-24-71DIMENSIONS: (FOR BOTH ELEVONS)FULL-SCALEMODEL SCALE

Area	<u>456. ft²</u>	<u>2.36 in.²</u>
Span (equivalent), INCH	<u>556.</u>	<u>3.33</u>
Inb'd equivalent chord, INCH	<u>118.</u>	<u>.708</u>
Outb'd equivalent chord, INCH	<u>118.</u>	<u>.708</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>.1662</u>	<u>.1662</u>
At Outb'd equiv. chord	<u>.517</u>	<u>.517</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0</u>	<u>0</u>
Tailing Edge	<u>0</u>	<u>0</u>
Hingeline	<u>0</u>	<u>0</u>
Area Moment (Normal to hinge line)	<u>2240. ft³</u>	<u>.835 in.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: VERTICAL FIN, VIGENERAL DESCRIPTION: 040A Orbiter Vertical Fin. Both leading and trailing edges swept.

DRAWING NUMBER:

JLP SDD 9-24-71DIMENSIONS:FULL-SCALEMODEL SCALETOTAL DATA, INCLUDES RUDDER, EXCLUDES TIP POD

Area		
Planform	342. ft ²	1.772 in. ²
Wetted	684. ft ²	3.55 in. ²
Span (equivalent)	246.2	1.480
Aspect Ratio	1.228	1.228
Rate of Taper	--	--
Taper Ratio	.374	.374
Diehedral Angle, degrees	--	--
Incidence Angle, degrees	0	0
Aerodynamic Twist, degrees	0	0
Toe-In Angle	--	--
Cant Angle	--	--
Sweep Back Angles, degrees		
Leading Edge	45.	45.
Trailing Edge	15.	15.
0.25 Element Line	40.75	40.75
Chords: INCH		
Root (Wing Root) (Z 500)	291.6	1.750
Tip, (equivalent) (Z 746.2)	109.0	.654
MAC	214.0	1.284
Fus. Sta. of .25 MAC	X 1422.7	--
W.P. of .25 MAC	Z 604.2	--
B.L. of .25 MAC	0	--
Airfoil Section		
Root	NACA 0012-64	NACA 0012-64
Tip	" "	" "

EXPOSED DATA

Area
Span, (equivalent)
Aspect Ratio
Taper Ratio
Chords
Root
Tip
MAC
Fus. Sta. of .25 MAC
W.P. of .25 MAC
B.L. of .25 MAC

SAME
AS
ABOVE

TABLE 3. (CONTINUED)

MODEL COMPONENT: RUDDER- R1GENERAL DESCRIPTION: _____

_____DRAWING NUMBER:JLP SDD 9-24-71DIMENSIONS:FULL-SCALEMODEL SCALE

Area

135.6 ft².702 in.²

Span (equivalent), INCH

246.31.475

Inb'd equivalent chord, INCH

115..690

Outb'd equivalent chord, INCH

43.8.263Ratio movable surface chord/
total surface chord

At Inb'd equiv. chord

.40.40

At Outb'd equiv. chord

.40.40

Sweep Back Angles, degrees

Leading Edge

29.129.1

Tailing Edge

15.015.0

Hingeline

29.129.1

Area Moment (Normal to hinge line)

448. ft³.145 in.³

TABLE 3. (CONTINUED)

MODEL COMPONENT: VERTICAL TAIL - V2GENERAL DESCRIPTION: Centerline Stabilizer

DRAWING NUMBER: _____

NR _____

DIMENSIONS:

FULL-SCALEMODEL SCALETOTAL DATA

Area

Planform

Wetted

Span (equivalent)

Aspect Ratio

Rate of Taper

Taper Ratio

Dihedral Angle, degrees

Incidence Angle, degrees

Aerodynamic Twist, degrees

Toe-In Angle

Cant Angle

Sweep Back Angles, degrees

Leading Edge

Trailing Edge

0.25 Element Line

Chords:

Root (Wing Sta. 0.0)

Tip, (equivalent)

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

Airfoil Section

Root

Tip

EXPOSED DATA

Area

Span, (equivalent)

Aspect Ratio

Taper Ratio

Chords

Root

Tip

MAC

Fus. Sta. of .25 MAC

W.P. of .25 MAC

B.L. of .25 MAC

69,837.3 in²2.514 in²

369.17 in

2.215 in

1.95

1.95

0.3137

.3137

283.0 in

1.728 in

90.35 in

0.542 in

206.38 in

1.238 in

1469.04

8.814

652.44

3.915

0

0

TABLE 3. (CONTINUED)

MODEL COMPONENT: RUDDER R₂

GENERAL DESCRIPTION: _____

DRAWING NUMBER: _____

DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>181 ft²</u>	<u>.939 in²</u>
Span (equivalent)	<u>346 in</u>	<u>2.073 in</u>
Inb'd equivalent chord	<u>115 in</u>	<u>.691 in</u>
Outb'd equivalent chord	<u>36 in</u>	<u>.217 in</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>.40</u>	<u>.40</u>
At Outb'd equiv. chord	<u>.40</u>	<u>.40</u>
Sweep Back Angles, degrees		
Leading Edge	<u>32°</u>	<u>32°</u>
Tailing Edge	<u>21°</u>	<u>21°</u>
Hingeline	<u>32°</u>	<u>32°</u>
Area Moment (Normal to hinge line)	<u>569 ft³</u>	<u>.212 in³</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - ACPS ENGINE POD P1

GENERAL DESCRIPTION: Blunt pod mounted on both wing tips.

DRAWING NUMBER: JLP SDD 9-24-71

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length, inch	<u>165.</u>	<u>.990</u>
Max. Width, inch	<u>55.</u>	<u>.330</u>
Max. Depth, inch	<u>28.</u>	<u>.168</u>
Fineness Ratio	<u>--</u>	<u>--</u>
Areas, in. ²		
Max. Cross-Sectional	<u>1540.</u>	<u>.0555</u>
Planform	<u>8280.</u>	<u>.298</u>
Wetted	<u>15,800.</u>	<u>.568</u>
Base	<u>1540.</u>	<u>.0555</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - OMS ENGINE POD, MIGENERAL DESCRIPTION: Pods mounted on both sides of aft end of fuselage.DRAWING NUMBER:JLP SDD 9-24-71DIMENSIONS:FULL-SCALEMODEL SCALE

Length, inch

251.1.509

Max. Width, inch

42.8.257

Max. Depth, inch

59.0.354

Fineness Ratio

----Areas, in.²

Max. Cross-Sectional

1828..0658

Planform

9880..356

Wetted

25,400..915

Base

1807..0651

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - HQ Tank - T₂

GENERAL DESCRIPTION: _____

Blunt cone-cylinder centerline tank with aft boat tail. $\theta_{\text{cone}} = 10^\circ$. Nose radius = 22 in. full-scale.Diameter at base = 274 in. full-scale.DRAWING NUMBER: _____DIMENSIONS:FULL-SCALEMODEL SCALE

Length

2022 in.12.133 in.

Max. Width

301 in.1.806 in.

Dia.

Max. Depth

301 in.1.806 in.

Fineness Ratio

6.736.73

Area

Max. Cross-Sectional

494 ft²2.562 in.²

Planform

Wetted

Base

422 ft²2.125 in.²

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - H0 Tank - T₁

GENERAL DESCRIPTION: _____

Blunt cone-cylinder centerline tank with aft boat tail. $\theta_{\text{cone}} = 15^\circ$. Nose radius = 22 in. full-scale.Diameter at base = 274 in. full-scale.DRAWING NUMBER: _____DIMENSIONS:FULL-SCALEMODEL SCALE

Length

1867 in.11.205 in.

Max. Width

301 in.1.806 in.

Max. Depth

Dia.

301 in.1.806 in.

Fineness Ratio

6.26.2

Area

Max. Cross-Sectional

494 ft²2.562 in.²

Planform

Wetted

Base

422 ft²2.125 in.²

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - HO Tank - T₃

GENERAL DESCRIPTION: _____

Blunt cone-cylinder centerline tank with aft boat tail. θ cone = 10°. Nose radius = 22 in. full-scale.Diameter at base = 304 in. full-scale.DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1914 in.</u>	<u>11.442 in.</u>
Max. Width	<u>323.5 in.</u>	<u>1.941 in.</u>
Max. Depth Dia.	<u>323.5 in.</u>	<u>1.941 in.</u>
Fineness Ratio	<u>5.92</u>	<u>5.92</u>
Area		
Max. Cross-Sectional	<u>587 ft²</u>	<u>2.959 in.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base	<u>518 ft²</u>	<u>2.613 in.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - HO-TANK-T₄

GENERAL DESCRIPTION: Blunt Cone-Cylinder Centerline Tank with Aft Boat Tail

$\theta_{\text{Cone}} = 20^\circ$. Nose Radius = 22 In. Full-Scale. Maximum Diameter = 334 In.

Full Scale.

DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1700 In.</u>	<u>10.200 In.</u>
Max. Width	<u>334 In.</u>	<u>2.004 In.</u>
Dia.		
Max. Depth	<u>334 In.</u>	<u>2.004 In.</u>
Fineness Ratio	<u>5.09</u>	<u>5.09</u>
Area		
Max. Cross-Sectional	<u>608 Ft.²</u>	<u>3.154 In.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base	<u>537 Ft.²</u>	<u>2.785 In.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: TANK VENTRAL FIN, F₁GENERAL DESCRIPTION: Single Fin Mounted on Tank, T₄.Fin has no movable surface.DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area	<u>337 Ft.²</u>	<u>1.747 In.²</u>
Span (equivalent)	<u>237 In.</u>	<u>1.420 In.</u>
Inb'd equivalent chord	<u>323 In.</u>	<u>1.940 In.</u>
Outb'd equivalent chord	<u>87 In.</u>	<u>0.520 In.</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>---</u>	<u>---</u>
At Outb'd equiv. chord	<u>---</u>	<u>---</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45</u>	<u>45</u>
Tailing Edge	<u>0</u>	<u>0</u>
Hingeline	<u>---</u>	<u>---</u>
Area Moment (Normal to hinge line)	<u>---</u>	<u>---</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster, B₁

GENERAL DESCRIPTION: Parallel burn version of recoverable pressure-fed booster (RPFB). Blunt cone-cylinder with afterbody flare. $\theta_{\text{cone}} = 20^\circ$. $\theta_{\text{flare}} = 15^\circ$.

Nose radius = 22 in. full-scale.

DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1799 in.</u>	<u>10.792 in.</u>
Dia. Body	<u>206 in.</u>	<u>1.236 in.</u>
Max. Dia. Flare	<u>402 in.</u>	<u>2.412 in.</u>
Fineness Ratio	<u>8.73</u>	<u>8.73</u>
Area		
Cross-Sectional (Body)	<u>231 ft²</u>	<u>1.200 in.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base (flare)	<u>901 ft²</u>	<u>4.539 in.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster, B SGENERAL DESCRIPTION: Pressure-Fed Booster

DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1799 In.</u>	<u>10.792 In.</u>
Dia. Body	<u>206 In.</u>	<u>1.236 In.</u>
Max. Dia. Flare	<u>624 In.</u>	<u>3.744 In.</u>
Fineness Ratio	<u>8.73</u>	<u>8.73</u>
Area		
Max. Cross-Sectional (Body)	<u>231 Ft²</u>	<u>1.200 In.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base (Flare)	<u>2125 Ft²</u>	<u>11.0093 In.²</u>

TABLE 3.. (CONTINUED)

MODEL COMPONENT: CODY - Booster, B₁S₂GENERAL DESCRIPTION: Pressure-Fed BoosterDRAWING NUMBER: _____DIMENSIONS:FULL-SCALEMODEL SCALE

Length	<u>1799 In.</u>	<u>10.792 In.</u>
Dia. Body	<u>206 In.</u>	<u>1.236 In.</u>
Max. Dia. Flare	<u>936.3 In.</u>	<u>5.618 In.</u>
Fineness Ratio	<u>8.73</u>	<u>8.73</u>
Area		
Max. Cross-Sectional (Body)	<u>231 Ft²</u>	<u>1.200 In.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base (Flare)	<u>4785 Ft²</u>	<u>24.7887 In.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster - B₂

GENERAL DESCRIPTION: _____

SRM Booster . Blunt cone-cylinder. θ cone = 20°. Nose radius = 16.67 in.
 full-scale.

DRAWING NUMBER: _____

DIMENSIONS:FULL-SCALEMODEL SCALE

Length

1775 in.10.633 in.

Max. Width

Dia.

156 in.0.936 in.

Max. Depth

156 in.0.936 in.

Fineness Ratio

11.3711.37

Area

Max. Cross-Sectional

137.8 ft²0.694 in.²

Planform

Wetted

Base

137.8 ft²0.694 in.²

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster - B₂S

GENERAL DESCRIPTION: _____

SRM Booster , B₂ booster with 15° afterbody flare. Nose radius = 16.67
in. full-scale.

DRAWING NUMBER: _____

DIMENSIONS:FULL-SCALEMODEL SCALE

Length

1775 in.10.633 in.

Dia. Body

156 in.0.936 in.

Max. Dia. Flare

275 in.1.650 in.

Fineness Ratio

11.3711.37

Area

Cross Sectional (Body)

137.8 ft²0.694 in.²

Planform

Wetted

Base (Flare)

428 ft²2.158 in.²

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster - B₃GENERAL DESCRIPTION: Parallel burn version of recoverable pressure-fed booster (RPFB). Blunt cone-cylinder with afterbody flare. θ cone = 15°.Nose radius - 22 in. full-scale. θ Flare = 15°DRAWING NUMBER: _____DIMENSIONS:

	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1800 in.</u>	<u>10.800 in.</u>
Dia. Body	<u>206 in.</u>	<u>1.236 in.</u>
Max. Dia. Flare	<u>402 in.</u>	<u>2.412 in.</u>
Fineness Ratio	<u>8.74</u>	<u>8.74</u>
Area		
Cross-Sectional (Body)	<u>231 ft²</u>	<u>1.200 in.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base (Flare)	<u>902 ft²</u>	<u>4.545 in.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster - B₄

GENERAL DESCRIPTION: Parallel burn version of recoverable pressure-fed
booster (RPFb). Blunt cone-cylinder with afterbody flare. $\theta_{\text{cone}} = 20^\circ$.
 $\theta_{\text{flare}} = 5^\circ$. Nose radius = 22 in. full scale.

DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1503 in.</u>	<u>9.025 in.</u>
Dia. Body	<u>247 in.</u>	<u>1.483 in.</u>
Max. Dia. Flare	<u>318 in.</u>	<u>1.909 in.</u>
Fineness Ratio	<u>6.09</u>	<u>6.09</u>
Area		
Cross-Sectional (Body)	<u>343 ft²</u>	<u>1.727 in.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base (Flare)	<u>568 ft²</u>	<u>2.865 in.²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: Fin, F₄GENERAL DESCRIPTION: Single fin mounted on each B₄ booster flare.Roll-out angle is 45° down. Fin has no movable surface.DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area (exposed planform, 1 fin)	<u>503 ft²</u>	<u>2.610 in²</u>
Span (equivalent, to booster C _L)	<u>424 in</u>	<u>2.544 in</u>
Inb'd equivalent chord	<u>410 in</u>	<u>2.460 in</u>
Outb'd equivalent chord	<u>110 in</u>	<u>0.660 in</u>
Ratio Elevator chord/horizontal tail chord		
At Inb'd equiv. chord	<u>---</u>	<u>---</u>
At Outb'd equiv. chord	<u>---</u>	<u>---</u>
Sweep Back Angles, degrees		
Leading Edge	<u>45</u>	<u>45</u>
Tailing Edge	<u>0</u>	<u>0</u>
Hingeline	<u>---</u>	<u>---</u>
Area Moment (Normal to hinge line)	<u>---</u>	<u>---</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster, B₅GENERAL DESCRIPTION: Pressure-Fed BoosterDRAWING NUMBER: _____DIMENSIONS:FULL-SCALEMODEL SCALE

Length

1799 In.10.792 In.

Dia. Body

206 In.1.236 In.

Max. Dia. Flare

319.3 In.1.916 In.

Fineness Ratio

8.738.73

Area

Max. Cross-Sectional (Body)

231 Ft²1.200 In.²

Planform

Wetted

Base (Flare)

557 Ft²2.88 In.²

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster, B6GENERAL DESCRIPTION: SRM Booster

DRAWING NUMBER _____

<u>DIMENSION:</u>	<u>FULL SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1613 in.</u>	<u>9.673 in.</u>
Dia. (Body)	<u>156 in.</u>	<u>0.936 in.</u>
Max Depth	<u>156 in.</u>	<u>0.936 in.</u>
Fineness Ratio	<u>10.35</u>	<u>10.35</u>
Area		
Max Cross-Sectional	<u>137.8 ft²</u>	<u>0.694 in²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base (Nozzle)	<u>95.4 ft²</u>	<u>0.481 in²</u>

TABLE 3. (CONTINUED)

MODEL COMPONENT: BODY - Booster, B₇GENERAL DESCRIPTION: 120" Dia. SRMDRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>1403 In.</u>	<u>8.418 In.</u>
Dia. Body	<u>120 In.</u>	<u>0.72 In.</u>
Max. Dia. Flare	<u>---</u>	<u>---</u>
Fineness Ratio	<u>11.7</u>	<u>11.7</u>
Area		
Max. Cross-Sectional (Body)	<u>79.3 Ft²</u>	<u>0.408 In.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base	<u>79.3 Ft²</u>	<u>0.408 In.²</u>

TABLE 3. (CONCLUDED)

MODEL COMPONENT: BODY - TVC Tank A1 for B₇

GENERAL DESCRIPTION: Thrust Vectoring Fuel Tank

DRAWING NUMBER: _____

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Length	<u>381.8 In.</u>	<u>2.291 In.</u>
Dia. Body	<u>42 In.</u>	<u>0.252 In.</u>
Max. Dia. Flare	<u>---</u>	<u>---</u>
Fineness Ratio	<u>9.08</u>	<u>9.08</u>
Area		
Max. Cross-Sectional (Body)	<u>9.65 Ft²</u>	<u>0.05 In.²</u>
Planform	<u>---</u>	<u>---</u>
Wetted	<u>---</u>	<u>---</u>
Base	<u>---</u>	<u>---</u>

TABLE 4.
Plume Definition

M = 1.5

$\frac{B_1}{r_e = 187 \text{ in.}}$		$\frac{B_6}{r_e = 66 \text{ in.}}$		$\frac{O_1 (3 \text{ Eng. -HiPc})}{r_e = 92.5 \text{ in.}}$	
x/r _e	r/r _e	x/r _e	r/r _e	x/r _e	r/r _e
0	1.00	0	1.00	0	1.0
0.5	1.17	0.5	1.23	0.5	1.0
1.0	1.22	1.0	1.48	1.0	1.0
1.5	1.23	1.5	1.70	1.5	1.0
2.0	1.20	2.0	1.88	2.0	1.0
		2.5	2.00		
		3.0	2.11		

M = 2.2

$\frac{B_6}{r_e = 66 \text{ in.}}$		$\frac{O_1 (3 \text{ Eng.-HiPc})}{r_e = 118 \text{ in.}}$	
x/r _e	r/r _e	x/r _e	r/r _e
0	1.00	0	1.00
0.5	1.33	0.5	1.10
1.0	1.62	1.0	1.20
1.5	1.88	1.5	1.26
2.0	2.13	2.0	1.33
2.5	2.33	2.5	1.41
3.0	2.51	3.0	1.47
4.0	2.84	4.0	1.57
5.0	3.12	5.0	1.62
6.0	3.35	6.0	1.65
7.0	3.55	7.0	1.66
8.0	3.72	8.0	1.64
9.0	3.87		
10.0	3.97		
11.0	4.03		
12.0	4.11		
13.0	4.15		
14.0	4.17		

TABLE 4, cont.

$$M = 2.5$$

$\frac{B_1}{r_e} = 187 \text{ in.}$		$\frac{O_1 (4 \text{ Eng. -J2S})}{r_e} = 89 \text{ in.}$	
x/r_e	r/r_e	x/r_e	r/r_e
0	1.00	0	1.00
0.5	1.34	0.5	1.21
1.0	1.53	1.0	1.34
1.5	1.77	1.5	1.46
2.0	1.91	2.0	1.56
2.5	2.03	2.5	1.61
3.0	2.13	3.0	1.67
4.0	2.30	4.0	1.71
5.0	2.30	5.0	1.75
6.0	2.23		

B7

$$M = 1.5$$

$$r_e = 60 \text{ in.}$$

x/r_e	r/r_e
0	1.00
0.026	1.01
0.100	1.05
0.240	1.10
0.320	1.14
0.430	1.18
0.680	1.27
1.000	1.34
1.400	1.50
1.870	1.61
2.430	1.72
3.410	1.87
4.150	1.94
4.970	1.98
5.830	2.00

$$M = 2.2$$

$$r_e = 60 \text{ in.}$$

x/r_e	r/r_e
0	1.00
0.04	1.02
0.17	1.09
0.23	1.12
0.30	1.16
0.38	1.20
0.48	1.24
0.58	1.29
0.70	1.34
0.83	1.40
1.13	1.52
1.30	1.60
1.69	1.73
2.13	1.87
2.64	2.02
3.22	2.17
3.87	2.31
4.58	2.45
5.36	2.57

TABLE 5.
INDEX OF MODEL FIGURES

FIGURE NUMBER		
1.	Axis System	87
2.	Photograph of Configuration (01)T4B7A1-4	88
3.	Photograph of Configuration (01)T4B7A1-5	89
4.	General Arrangement-Ascent Configuration 01T1B1	90
5.	General Arrangement-Ascent Configuration with Booster B1 or B5	91
6.	General Arrangement-Ascent Configuration with Booster B2 or B2S	92
7.	General Arrangement-Ascent Configuration with Booster B3	93
8.	General Arrangement-Ascent Configuration with Booster B4	94
9.	General Arrangement-Ascent Configuration 01T4B7-4 (Side View)	95
10.	General Arrangement-Ascent Configuration 01T4B7-4 (Top View)	96
11.	General Arrangement-Ascent Configuration 01T4B7-4 (Rear View)	97
12.	Centerline H0 Tank Locations	98
13.	Moment Transfer Diagram for Ascent Configuration	99
14.	Moment Transfer Diagram for Orbiter Alone	100
15.	Moment Transfer Diagram for Centerline Tank Alone	101
16.	Moment Transfer Diagram for B1 Booster Alone	102
17.	Moment Transfer Diagram for B2 and B2S Boosters Alone	103
18.	Moment Transfer Diagram for B3 Booster Alone	104
19.	Moment Transfer Diagram for B4 Booster Alone	105

TABLE 5.

INDEX OF MODEL FIGURES (CONTINUED)

FIGURE NUMBER		
20.	General Arrangement O4OA Orbiter	106
21.	Orbiter Body, B1	107
22.	Wing and Elevon, W1	108
23.	Elevon Deflections and Rudder Flare	109
24.	Vertical Fin and Rudder, V1	110
25.	Vertical Fin and Rudder, V2	111
26.	ACPS Engine Pod, P1 and OMS Engine Pod, M1	112
27.	Centerline HO Tank, T1	113
28.	Centerline HO Tank, T2	114
29.	Centerline HO Tank, T3	115
30.	Centerline HO Tank T4 With Tank Ventral Fin, F1	116
31.	Centerline Ventral Fin, F1	117
32.	Boosters, B1 and B5	118
33.	Booster, B1S1	119
34.	Booster, B1S2	120
35.	Booster, B1D2	121
36.	Booster, B1D6	123
37.	Booster, B1D7	124
38.	Boosters, B2, B2S & B6	125
39.	Booster, B3	126
40.	Booster, B4	127

TABLE 5.

INDEX OF MODEL FIGURES (CONTINUED)

FIGURE NUMBER		
41.	Booster Fin F ⁴ Mounted on Booster B ⁴	128
42.	Booster, B7A1	129
43.	Plume Contours for Pressure Fed Boosters	130
44.	Plume Contours for 156 Inch Solid Rocket Motors	131
45.	Plume Contour for Orbiter	132
46.	Sketch of Plume for Booster B7	133
47.	Tunnel Installation for the OBT Configuration- Pitch Series (Orbiter, Tank and Booster Independently Supported)	134
48.	Tunnel Installation for the OBT Configuration- Pitch Series (Booster and Orbiter Fixed to Centerline Tank)	135
49.	Tunnel Installation for the OBT Configuration- Pitch Series (Booster Fixed to Centerline Tank)	136
50.	Tunnel Installation for the OBT Configuration- Pitch Series (Right Booster Fixed to Centerline Tank, Left Booster Independently Supported)	137
51.	Tunnel Installation for the OBT Configuration- Pitch Series (Left and Right Booster Independently Supported)	138
52.	Tunnel Installation for the OBT Configuration With 6° Sideslip Angle-Pitch Series (Boosters Fixed to Centerline Tank)	139
53.	Tunnel Installation for the OBT Configuration With 0° Angle of Attack-Yaw Series (Boosters Fixed to Centerline Tank)	140

TABLE 5.

INDEX OF MODEL FIGURES (CONTINUED)

FIGURE NUMBER		
54.	Tunnel Installation for the OBT Configuration With 6° Angle of Attack-Yaw Series (Boosters Fixed to the Centerline Tank)	141
55.	Tunnel Installation for the Orbiter Alone Configuration	142
56.	Tunnel Installation for the Tank Alone Configuration	143
57.	Tunnel Installation for the Booster Alone Configuration	144

TABLE 6. INDEX OF DATA FIGURES

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Effects of a B1 Booster on (01)TLB1 at Beta = 0	A	Ascent Configuration Booster Isolation	I/1-50
Longitudinal Effects of a B1 Booster on (01)TLB1 at Beta = 6	A	Ascent Configuration Booster Isolation	I/51-80
Lateral-Directional Effects of a B1 Booster on (01)TLB1 at Beta = 0	B	Ascent Configuration Booster Isolation	I/81-95
Lateral-Directional Effects of a B1 Booster on (01)TLB1 at Beta = 6	B	Ascent Configuration Booster Isolation	I/96-104
Lateral-Directional Effects of a B1 Booster on (01)TLB1 with Beta at Alpha = 0	D	Ascent Configuration Booster Isolation	I/105-110
Longitudinal Effects of a B1 Booster on (01)TLB1 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	I/111-120
Effect of Beta on Longitudinal Characteristics of 01TLB1	A	Beta	I/121-180
Effect of Beta on Lateral-Directional Characteristics of 01TLB1	B	Beta	I/181-198
Lateral-Directional Characteristics of Configuration 01TLB1 with Beta at Alpha = 0	C		I/199-218
Aileron Effectiveness of Configuration (01)TLB1 at Beta = 0	B	Aileron Deflection	I/219-236
Aileron Effectiveness of Configuration 01TLB1 at Beta = 0	B	Aileron Deflection	I/237-239
Variation of Aileron Control at Alpha = 0 with Beta of 01TLB1	C	Aileron Deflection	I/240-243
Longitudinal Effects of a B2 Booster on (01)TLB2 at Beta = 6	A	Ascent Configuration Booster Isolation	I/244-303

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Lateral-Directional Effects of a B2 Booster on (01)TLB2 at Beta = 6	B	Ascent Configuration Booster Isolation	I/304-309
Effect of Beta on Longitudinal Characteristics of 01TLB2	A	Beta	I/310-369
Effect of Beta on Lateral-Directional Characteristics of 01TLB2	B	Beta	I/370-387
Effect of Beta on Longitudinal Characteristics of 01TLB2S	A	Beta	I/388-447
Effect of Beta on Lateral-Directional Characteristics of 01TLB2S	B	Beta	I/448-465
Longitudinal Effects of a B3 Booster on (01)TLB3 at Beta = 0	A	Ascent Configuration Booster Isolation	I/466-525
Longitudinal Effects of a B3 Booster on (01)TLB3 at Beta = 6	A	Ascent Configuration Booster Isolation	I/526-545
Lateral-Directional Effects of a B3 Booster on (01)TLB3 at Beta = 0	B	Ascent Configuration Booster Isolation	I/546-557
Lateral-Directional Effects of a B3 Booster on (01)TLB3 at Beta = 6	B	Ascent Configuration Booster Isolation	I/558-563
Lateral-Directional Effects of a B3 Booster on (01)TLB3 with Beta at Alpha = 0	D	Ascent Configuration Booster Isolation	I/564-569
Longitudinal Effects of a B3 Booster on (01)TLB3 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	I/570-579

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Effects of a B ₄ Booster on (01)TLB ₄ at Beta = 0	A	Ascent Configuration Booster Isolation	I/580-639
Longitudinal Effects of a B ₄ Booster on (01)TLB ₄ at Beta = 6	A	Ascent Configuration Booster Isolation	I/640-659
Lateral-Directional Effects of a B ₄ Booster on (01)TLB ₄ at Beta = 0	B	Ascent Configuration Booster Isolation	I/660-674
Lateral-Directional Effects of a B ₄ Booster on (01)TLB ₄ at Beta = 6	B	Ascent Configuration Booster Isolation	I/675-680
Lateral-Directional Effects of a B ₄ Booster on (01)TLB ₄ with Beta at Alpha = 0	D	Ascent Configuration Booster Isolation	I/681-689
Longitudinal Effects of a B ₄ Booster on (01)TLB ₄ with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	I/690-704
Longitudinal Effects of a B ₅ Booster on (01)TLB ₅ at Beta = 6	A	Ascent Configuration Booster Isolation	I/705-724
Lateral-Directional Effects of a B ₅ Booster on (01)TLB ₅ at Beta = 6	B	Ascent Configuration Booster Isolation	I/725-730
Longitudinal Effects of a B ₅ Booster on (01VL)TLB ₅ at Beta = 0	A	Ascent Configuration Booster Isolation	I/731-790
Longitudinal Effects of a B ₅ Booster on (01VL)TLB ₅ at Beta = 6	A	Ascent Configuration Booster Isolation	I/791-800
Lateral-Directional Effects of a B ₅ Booster on (01VL)TLB ₅ at Beta = 0	B	Ascent Configuration Booster Isolation	I/801-812
Lateral-Directional Effects of a B ₅ Booster on (01VL)TLB ₅ at Beta = 6	B	Ascent Configuration Booster Isolation	I/813-815
Lateral-Directional Effects of a B ₅ Booster on (01VL)TLB ₅ with Beta at Alpha = 0	D	Ascent Configuration Booster Isolation	I/816-824

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Effects of a B5 Booster on (01V1)TLB5 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	I/825-839
Longitudinal Characteristics of (01)TLB6 at Beta = 0	A	Mach No.	I/840-849
Lateral-Directional Characteristics of (01)TLB6 at Alpha = 0	C	Mach No.	I/850-853
Longitudinal Characteristics of (01)TLB6 with Ailerons = 20 at Beta = 0	A	Mach No.	I/854-863
Lateral-Directional Characteristics of (01)TLB6 with Ailerons = 20 at Beta = 0	B	Mach No.	I/864-866
Lateral-Directional Characteristics of (01)TLB6 with Ailerons = 20 at Alpha = 0	D	Mach No.	I/867-869
Longitudinal Characteristics of (01)TLB6 with Ailerons = 20 at Alpha = 0	E	Mach No.	I/870-874
Tank Nose Cone Effect on Longitudinal Characteristics of Configuration (01)TLB1 at Beta = 0	A	Configuration	I/875-904
Longitudinal Effects of a B1 Booster on (01)T2B1 at Beta = 6	A	Ascent Configuration Booster Isolation	I/905-914
Lateral-Directional Effects of a B1 Booster on (01)T2B1 at Beta = 6	B	Ascent Configuration Booster Isolation	I/915-917
Tank Nose Cone Effect on Longitudinal Characteristics of Configuration (01V1)TLB5 at Beta = 0	A	Configuration	I/918-947
Tank Nose Cone Effect on Lateral-Directional Characteristics of Configuration (01V1)TLB5 at Alpha = 0	C	Configuration	I/948-959

TABLE 6. (CONTINUED)

TITLE	PLOTTED		CONDITIONS VARYING	VOLUME/ PAGE NO.
	COEFFICIENTS	SCHEDULE		
Effect of Tank T2 Longitudinal Position on (01)T2B1 at Beta = 0	A		Configuration	I/960-989
Longitudinal Effects of a B1 Booster on (01)T2AB1 at Beta = 6	A		Ascent Configuration Booster Isolation	I/990-999
Lateral-Directional Effects of a B1 Booster on (01)T2AB1 at Beta = 6	B		Ascent Configuration Booster Isolation	I/1000-1002
Effect of Tank T2 Longitudinal Position on (01V1)T2B5 at Beta = 0	A		Configuration	I/1003-1032
Effect of Tank T2 Longitudinal Position on (01V1)T2B5 at Beta = 0	A		Configuration	I/1033-1062
Effect of Tank T2 Longitudinal Position on (01V1)T2B5 with Beta at Alpha = 0	C		Configuration	I/1063-1074
Effect of Tank T2 Longitudinal Position on (01V1)T2B5 with Beta at Alpha = 0	C		Configuration	I/1075-1082
Longitudinal Effects of a B1 Booster on (01)T3B1 at Beta = 0	A		Ascent Configuration Booster Isolation	II/1-40
Longitudinal Effects of a B1 Booster on (01)T3B1 at Beta = 6	A		Ascent Configuration Booster Isolation	II/41-60
Lateral-Directional Effects of a B1 Booster on (01)T3B1 at Beta = 0	B		Ascent Configuration Booster Isolation	II/61-72
Lateral-Directional Effects of a B1 Booster on (01)T3B1 at Beta = 6	B		Ascent Configuration Booster Isolation	II/73-78
Lateral-Directional Effects of a B1 Booster on (01)T3B1 with Beta at Alpha = 0	D		Ascent Configuration Booster Isolation	II/79-84

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME PAGE NO.
Longitudinal Effects of a B1 Booster on (01)T3B1 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	II/85-99
Longitudinal Effects of a B2 Booster on (01)T3B2 at Beta = 0	A	Ascent Configuration Booster Isolation	II/100-139
Lateral-Directional Effects of a B2 Booster on (01)T3B2 at Beta = 0	B	Ascent Configuration Booster Isolation	II/140-151
Lateral-Directional Effects of a B2 Booster on (01)T3B2 with Beta at Alpha = 0	C	Ascent Configuration Booster Isolation	II/152-157
Longitudinal Effects of a B2 Booster on (01)T3B2 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	II/158-167
Longitudinal Characteristics of Configuration 01T3B2 at Beta = 0	A		II/168-177
Longitudinal Characteristics of Configuration 01T3B2 at Beta = 6	A	Mach No.	II/178-187
Lateral-Directional Characteristics of Configuration 01T3B2 at Beta = 6	B	Mach No.	II/188-190
Longitudinal Effects of a B3 Booster on (01)T3B3 at Beta = 0	A	Ascent Configuration Booster Isolation	II/191-230
Longitudinal Effects of a B3 Booster on (01)T3B3 at Beta = 6	A	Ascent Configuration Booster Isolation	II/231-240
Lateral-Directional Effects of a B3 Booster on (01)T3B3 at Beta = 0	B	Ascent Configuration Booster Isolation	II/241-252
Lateral-Directional Effects of a B3 Booster on (01)T3B3 at Beta = 6	B	Ascent Configuration Booster Isolation	II/253-255

TABLE 6. (CONTINUED)

TITLE	PIOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Lateral-Directional Effects of a B3 Booster on (01)T3B3 with Beta at Alpha = 0	D	Ascent Configuration Booster Isolation	II/256-261
Longitudinal Effects of a B3 Booster on (01)T3B3 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	II/262-271
B3 Boosters Contribution to Longitudinal Characteristics of (01)T3B3 at Beta = 0	A	Configuration	II/272-321
B3 Boosters Contribution to Lateral-Directional Characteristics of (01)T3B3 at Alpha = 0	C	Configuration	II/322-333
Effect of Beta on Longitudinal Characteristics of 01T3B4	A	Beta	II/334-394
Effect of Beta on Lateral-Directional Characteristics of 01T3B4	B	Beta	II/394-411
Lateral-Directional Characteristics of 01T3B4 with Beta at Alpha = 0 and 6	C	Alpha	II/412-435
Lateral-Directional Characteristics of Configuration (01)T3B4 with Beta at Alpha = 0	C		II/436-439
Aileron Effectiveness of Configuration 01T3B4 at Beta = 0	B	Aileron Deflection	II/440-457
Aileron Effectiveness of Configuration (01)T3B4 at Beta = 0	B	Aileron Deflection	II/458-460
Effects of Alpha on Rudder Effectiveness of Configuration 01T3B4 at Beta = 0	B	Rudder Deflection	II/461-478
Effects of Alpha on Rudder Effectiveness of Configuration (01)T3B4 at Beta = 0	B	Rudder Deflection	II/479-481
Effect of Booster Fin F4 on Longitudinal Characteristics of 01T3B4 at Beta = 0	A	Configuration	II/482-541

TABLE 6. (CONTINUED)

TITLE	PICTURED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Effect of Booster Fin F ₄ on Longitudinal Characteristics of (01)T3B ₄ at Beta = 0	A	Configuration	II/542-551
Effect of Booster Fin F ₄ on Longitudinal Characteristics of (01)T3B ₄ at Beta = 6	A	Configuration	II/552-611
Effect of Booster Fin F ₄ on Lateral-Directional Characteristics of (01)T3B ₄ at Beta = 6	B	Configuration	II/612-629
Longitudinal Effects of a B5 Booster on (01V1)T3B5 at Beta = 0	A	Ascent Configuration Booster Isolation	II/630-669
Longitudinal Effects of a B5 Booster on (01V1)T3B5 at Beta = 6	A	Ascent Configuration Booster Isolation	II/670-679
Lateral-Directional Effects of a B5 Booster on (01V1)T3B5 at Beta = 0	B	Ascent Configuration Booster Isolation	II/680-691
Lateral-Directional Effects of a B5 Booster on (01V1)T3B5 at Beta = 6	B	Ascent Configuration Booster Isolation	II/692-694
Lateral-Directional Effects of a B5 Booster on (01V1)T3B5 with Beta at Alpha = 0	D	Ascent Configuration Booster Isolation	II/695-700
Longitudinal Effects of a B5 Booster on (01V1)T3B5 with Beta at Alpha = 0	E	Ascent Configuration Booster Isolation	II/701-710
Effects of Beta on Longitudinal Characteristics of (01)T ₄ B7A1-4	A	Beta	III/1-60
Effects of Beta on Lateral-Directional Characteristics of (01)T ₄ B7A1-4	B	Beta	III/61-78

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Characteristics of Configuration 01T4B7A1-4 at Beta = 0	A	Mach No.	III/79-88
Lateral-Directional Characteristics of Configuration 01T4B7A1-4 at Alpha = 0	C	Mach No.	III/89-92
Aileron Effectiveness of Configuration (01)T4B7A1-4 at Beta = 0	B	Aileron Deflection	III/93-110
Aileron Effectiveness of Configuration (01)T4B7A1-4 at Beta = 6	B	Aileron Deflection	III/111-128
Effects of Beta on Aileron Control of Configuration (01)T4B7A1-4 at Alpha = 0	C	Aileron Deflection	III/129-152
Effects of Aileron on Longitudinal Characteristics of Configuration (01)T4B7A1-4 at Beta = 6	A	Aileron Deflection	III/153-212
Effects of Alpha on Rudder Control of Configuration (01)T4B7A1-4 at Beta = 0	B	Rudder Deflection	III/213-230
Rudder Effectiveness of Configuration (01)T4B7A1-4 at Alpha = 0	C	Rudder Deflection	III/231-254
Effects of Beta on Lateral-Directional Characteristics of (01)T4B7A1-4 with Rudder = 10	B	Beta	III/255-272
Effects of A1 on Longitudinal Characteristics of (01)T4B7A1-4 at Beta = 0	A	Configuration	III/273-302
Effects of A1 on Lateral-Directional Characteristics of (01)T4B7A1-4 at Alpha = 0	C	Configuration	III/303-314
Effects of Fin F1 on Longitudinal Characteristics of Configuration 01T4B7A1-4 at Beta = 0	A	Configuration	III/315-334

TABLE 6. (CONTINUED)

TITLE	PILOTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Effects of Fin F1 on Lateral-Directional Characteristics on Configuration 01T4B7A1-4 at Alpha = 0	C	Configuration	III/335-342
Effects of Fin F1 on Longitudinal Characteristics of Configuration T4B7A1-4 at Beta = 0	A	Configuration	III/343-402
Effects of Fin F1 on Lateral-Directional Characteristics on Configuration T4B7A1-4 at Alpha = 0	C	Configuration	III/403-426
Effects of B7A1-4 on Longitudinal Characteristics of Configuration (01)T4B7A1-4 at Beta = 0	A	Configuration	III/427-486
Effects of B7A1-4 on Lateral-Directional Characteristics of Configuration (01)T4B7A1-1 at Alpha = 0	C	Configuration	III/487-510
Comparison of the Longitudinal Characteristics of (01)T4B7A1-4 and (01)T4B7A1-5 at Beta = 0	A	Configuration	III/511-570
Comparison of the Lateral-Directional Characteristics of (01)T4B7A1-4 and (01)T4B7A1-5 at Beta = 6	B	Configuration	III/571-588
Comparison of the Lateral-Directional Characteristics of (01)T4B7A1-4 and (01)T4B7A1-5 at Alpha = 0	C	Configuration	III/589-612
Effects of Beta on Longitudinal Characteristics of (01)T4B7A1-5	A	Beta	III/613-672
Effects of Beta on Lateral-Directional Characteristics of (01)T4B7A1-5	B	Beta	III/673-690
Longitudinal Effect of Exhaust Plumes on Configuration 01T1B1 at Beta = 0	A	Plume	IV/ 1-20
Longitudinal Effect of Exhaust Plumes on Configuration 01T1B1 at Beta = 6	A	Plume	IV/21-30

77

77

TABLE 6. (CONTINUED)

TITLE	PLOTTED		CONDITIONS VARYING	VOLUME/ PAGE NO.
	COEFFICIENTS	SCHEDULE		
Lateral-Directional Effect of Exhaust Plumes on Configuration 01T1B1 at Beta = 6	B		Plume	IV/31-33
Longitudinal Effect of M = 1.5 Exhaust Plumes on Configuration 01T1B1 at Beta = 0	A		Plume	IV/34-53
Lateral-Directional Effect of M=1.5 Exhaust Plumes on Configuration 01T1B1 at Alpha = 0	C		Plume	IV/54-61
Effect of Exhaust Plumes on Aileron Effectiveness of Configuration 01T1B1 on Beta = 0	B		Plume	IV/62-64
Effects of M=1.5 Exhaust Plumes on Aileron Effectiveness of Configuration 01T1B1 at Beta = 0	B		Plume and Aileron Deflection	IV/65-70
Variation of Aileron Control at Alpha = 0 with Beta and M=1.5 Exhaust Plumes 01T1B1	C		Plume and Aileron Deflection	IV/71-78
Variation of Rudder Control at Beta = 0 with Alpha and M=1.5 Exhaust Plumes 01T1B1	B		Plume and Rudder Deflection	IV/79-84
Effects of M=1.5 Exhaust Plumes on Rudder Effectiveness with Beta at Alpha = 0 of 01T1B1	C		Plume and Rudder Deflection	IV/85-92
Lateral-Directional Characteristics of Configuration 01T1B1 + Plume(2.5) with Deflected Rudder at Beta = 0	B			IV/93-95
Longitudinal Characteristics of Configuration 01T1B1+Plume(2.5) with Deflected Rudder at Beta = 0	A			IV/96-105
Longitudinal Effect of Mach No.=1.5 Exhaust Plumes on Configuration 01T3B6 at Beta = 0	A		Plume	IV/106-115

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Effect of Mach No=2.2 Exhaust Plumes on Configuration 01T3B6 at Beta = 0	A	Plume	IV/116-125
Lateral-Directional Effect of Mach No.=1.5 Exhaust Plumes on Configuration 01T3B6 at Alpha = 0	C	Plume	IV/126-129
Lateral-Directional Effect of Mach No=2.2 Exhaust Plumes on Configuration 01T3B6 at Alpha = 0	C	Plume	IV/130-133
Effects of M=1.5 Exhaust Plumes on Aileron Effectiveness of Configuration 01T3B6 at Beta = 0	B	Plume and Aileron Deflection	IV/134-136
Effects of M=2.2 Exhaust Plumes on Aileron Effectiveness of Configuration 01T3B6 at Beta = 0	B	Plume and Aileron Deflection	IV/137-139
Variation of Aileron Control at Alpha = 0 with Beta and M=1.5 Exhaust Plumes 01T3B6	C	Plume and Aileron Deflection	IV/140-143
Variation of Aileron Control at Alpha = 0 with Beta and M=2.2 Exhaust Plumes 01T3B6	C	Plume and Aileron Deflection	IV/144-147
Variation of Rudder Control at Beta = 0 with Alpha and M=1.5 Exhaust Plumes 01T3B6	B	Plume and Rudder Deflection	IV/148-150
Effects of M=1.5 Exhaust Plumes on Rudder Effectiveness with Beta at Alpha = 0 of 01T3B6	C	Plume and Rudder Deflection	IV/151-154
Variation of Rudder Control at Beta = 0 with Alpha and M=2.2 Exhaust Plumes 01T3B6	B	Plume and Rudder Deflection	IV/155-157
Effects of M=2.2 Exhaust Plumes on Rudder Effectiveness with Beta at Alpha = 0 of 01T3B6	C	Plume and Rudder Deflection	IV/158-161
Longitudinal Effect of M=1.5 Exhaust Plumes on Configuration 01T4B7A1-4 at Beta = 0	A	Plume	IV/162-171

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Effect of M=2.2 Exhaust Plumes on Configuration 01T4B7A1-4 at Beta = 0	A	Plume	IV/172-181
Lateral-Directional Effects of M=1.5 Exhaust Plumes on Configuration 01T4B7A1-4 at Alpha = 0	C	Plume	IV/182-185
Lateral-Directional Effects of M=2.2 Exhaust Plumes on Configuration 01T4B7A1-4 at Alpha = 0	C	Plume	IV/186-189
Aileron Effectiveness of Configuration 01T4B7A1-4+Plume(1.5) at Beta = 0	B	Aileron Deflection	IV/190-192
Aileron Effectiveness of Configuration 01T4B7A1-4+Plume(2.2) at Beta = 0	B	Aileron Deflection	IV/193-195
Effects of Beta on Aileron Control of Configuration 01T4B7A1-4+Plume(1.5) at Alpha = 0	C	Aileron Deflection	IV/196-199
Effects of Beta on Aileron Control of Configuration 01T4B7A1-4+Plume(2.2) at Alpha = 0	C	Aileron Deflection	IV/200-203
Rudder Effectiveness of Configuration 01T4B7A1-4+Plume(1.5) at Alpha = 0	C	Rudder Deflection	IV/204-207
Rudder Effectiveness of Configuration 01T4B7A1-4+Plume(2.2) at Alpha = 0	C	Rudder Deflection	IV/208-211
Effects of Alpha on Rudder Control of Configuration 01T4B7A1-4+Plume(1.5) at Beta = 0	B	Rudder Deflection	IV/212-214
Effects of Alpha on Rudder Control of Configuration 01T4B7A1-4+Plume(2.2) at Beta = 0	B	Rudder Deflection	IV/215-217

TABLE 6. (CONTINUED)

TITLE	PICTURED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Effects of M=1.5 Exhaust Plumes on Configuration 01V1T4B7A1-4 at Beta = 0	A	Plume	IV/218-227
Lateral-Directional Effects of M=1.5 Exhaust Plumes on Configuration 01V1T4B7A1-4 at Alpha = 0	C	Plume	IV/228-231
Longitudinal Effects of M=2.2 Exhaust Plumes on Configuration 01V1T4B7A1-4 at Beta = 0	A	Plume	IV/232-241
Lateral-Directional Effects of M=2.2 Exhaust Plumes on Configuration 01V1T4B7A1-4 at Alpha = 0	C	Plume	IV/242-245
Effects of M=1.5 Exhaust Plumes on Rudder Effectiveness with and without Rudder Flare	C	Plume, Rudder Deflection, Rudder Flare	IV/246-253
Effects of M=2.2 Exhaust Plumes on Rudder Effectiveness with and without Rudder Flare	C	Plume, Rudder Deflection, Rudder Flare	IV/254-261
Variation of Rudder Control with and without Rudder Flare and M=1.5 Exhaust Plume	A	Plume, Rudder Deflection, Rudder Flare	IV/262-281
Variation of Rudder Control with and without Rudder Flare and M=2.2 Exhaust Plume	A	Plume, Rudder Deflection, Rudder Flare	IV/282-301
Effects of Beta = 6 on Longitudinal Characteristics of Configuration (01)T1	A	Beta	IV/302-321
Effects of Beta = 6 on Lateral-Directional Characteristics of Configuration (01)T1	B	Beta	IV/322-327
Lateral-Directional Characteristics of V1 and V2 on (01)T1 at Alpha = 0	D	Configuration	IV/328-336
Longitudinal Characteristics Comparison of V1 and V2 on (01)T1 at Alpha = 0	E	Configuration	IV/337-351

TABLE 6. (CONTINUED)

TITLE	PLOTTED		VOLUME/ PAGE NO.
	COEFFICIENTS SCHEDULE	CONDITIONS VARYING	
Aileron Effectiveness of Configuration (01V1)T1 at Beta = 0	B	Aileron Deflection	IV/352-360
Effects of Beta on Aileron Effectiveness of Configuration (01V1)T1 at Alpha = 0	D	Aileron Deflection	IV/361-369
Longitudinal Characteristics of (01V1)T1 with Ailerons=20 at Beta = 0	A	Mach No.	IV/370-379
Lateral-Directional Characteristics of (01V1)T1 with Ailerons = 20 at Beta = 0	B	Mach No.	IV/380-382
Lateral-Directional Characteristics of (01V1)T1 with Ailerons = 20 at Alpha = 0	D	Mach No.	IV/383-385
Longitudinal Characteristics of (01V1)T1 with Ailerons=20 at Alpha = 0	E	Mach No.	IV/386-390
Rudder Effectiveness of Configuration (01V1)T1 at Alpha = 0	C	Rudder Deflection	IV/391-402
Effects of Alpha on Rudder Effectiveness of Configuration (01V1)T1 at Beta = 0	B	Rudder Deflection	IV/403-411
Effect of Tank T2 Longitudinal Position on (01)T2 at Beta=0	A	Configuration	IV/412-431
Effect of Tank T2 Longitudinal Position on (01)T2 with Beta at Alpha = 0	C	Configuration	IV/432-439
Longitudinal Characteristics of Various Boosters on Configuration (01)T2 at Beta = 6	A	Configuration	IV/440-449
Lateral-Directional Characteristics of Various Boosters on Configuration (01)T2 at Beta = 6	B	Configuration	IV/450-452

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Effects of Beta = 6 on Longitudinal Characteristics of Configuration (01)T ₃	A	Beta	IV/453-472
Effects of Beta = 6 on Lateral-Directional Characteristics of Configuration (01)T ₃	B	Beta	IV/473-478
Effects of Beta on Longitudinal Characteristics of (01)T ₄	A	Beta	IV/479-488
Effects of Beta on Lateral-Directional Characteristics of (01)T ₄	B	Beta	IV/489-491
Longitudinal Characteristics of Configuration TLB5 at Beta = 0	A	Mach No.	IV/492-501
Lateral-Directional Characteristics of Configuration TLB5 at Alpha = 0	C	Mach No.	IV/502-505
Longitudinal Characteristics of Configuration TLB6 at Beta = 0	A	Mach No.	IV/506-515
Lateral-Directional Characteristics of Configuration TLB6 at Alpha = 0	C	Mach No.	IV/516-519
Longitudinal Characteristics of Configuration T3B2 at Beta = 0	A	Mach No.	IV/520-529
Lateral-Directional Characteristics of Configuration T3B2 at Alpha = 0	C	Mach No.	IV/530-533
Longitudinal Characteristics of Configuration T3B5 at Beta = 0	A	Mach No.	IV/534-543
Lateral-Directional Characteristics of Configuration T3B5 at Alpha = 0	C	Mach No.	IV/544-547

TABLE 6. (CONTINUED)

TITLE	PLOTTED		CONDITIONS VARYING	VOLUME/ PAGE NO.
	COEFFICIENTS	SCHEDULE		
Effects of Beta on Longitudinal Characteristics of 01	A		Beta	V/1-60
Effects of Beta on Lateral-Directional Characteristics of 01	B		Beta	V/61-78
Effects of Alpha on Rudder Effectiveness of Configuration 01 at Beta = 0	B		Rudder Deflection	V/79-90
Effects of Alpha on Rudder Effectiveness of Configuration 01V1	B		Rudder Deflection	V/91-93
Effects of Beta on Longitudinal Characteristics of 01V1	A		Beta	V/94-123
Effects of Beta on Lateral-Directional Characteristics of 01V1	B		Beta	V/124-132
Effects of Beta on Longitudinal Characteristics V Off	A		Beta	V/133-162
Effects of Beta on Lateral-Directional Characteristics of 01 V Off	B		Beta	V/163-171
Effects of Beta on Lateral-Directional Characteristics of 01C1	B		Beta	V/172-186
Effects of Beta on Lateral-Directional Characteristics of 01C1	B		Beta	V/187-201
Longitudinal Characteristics of Various Tanks at Beta = 0	A		Configuration	V/202-261
Longitudinal Characteristics of Various Boosters Alone at Beta = 0 and Nominal MRC	A		Configuration	V/262-301

TABLE 6. (CONTINUED)

TITLE	PLOTTED COEFFICIENTS SCHEDULE	CONDITIONS VARYING	VOLUME/ PAGE NO.
Longitudinal Characteristics of Various Boosters Alone at Beta = 0 and Tank 1 MRC	A	Configuration	V/302-341
Longitudinal Characteristics of Various Boosters Alone at Beta = 0 and Tank 3 MRC	A	Configuration	V/342-381
Lateral-Directional Characteristics of Various Boosters Alone at Beta = 0 and Tank 1 MRC	B	Configuration	V/382-393
Lateral-Directional Characteristics of Various Boosters Alone at Beta = 0 and Tank 3 MRC	B	Configuration	V/394-405
Lateral-Directional Characteristics of Various Boosters Alone at Alpha = 0 and Nominal MRC	C	Configuration	V/406-421
Lateral-Directional Characteristics of Various Boosters Alone at Alpha = 0 and Tank 1 MRC	C	Configuration	V/422-437
Lateral-Directional Characteristics of Various Boosters Alone at Alpha = 0 and Tank 3 MRC	C	Configuration	V/438-453
Comparison of Longitudinal Characteristics of Booster BL with Larger Aft Flares S	A	Configuration	V/454-523
Comparison of Longitudinal Characteristics of Booster BL with Flaps D2 at Various Deflection	A	Flap Deflection	V/524-583
Comparison of Longitudinal Characteristics of Booster BL with Various Flaps	A	Flap Deflection	V/584-643

TABLE 6. (CONCLUDED)

PLOTTED COEFFICIENTS SCHEDULE:

(A) - CN, CA, CAF, CIM, CL & CDF vs. ALPHA

CN & CL vs. CIM, CL & CLSQR vs. CDF

(B) - CY, CYN & CBL vs. ALPHA

(C) - CY, CYN, CBL & CAF vs. BETA

(D) - CY, CYN, CBL vs. BETA

(E) - CN, CAF, CIM, CL & CDF vs. BETA

- Notes:
1. Positive directions of force coefficients moment coefficients, and angles are indicated by arrows.
 2. For clarity, origins of wind and stability axes have been displaced from the center of gravity.

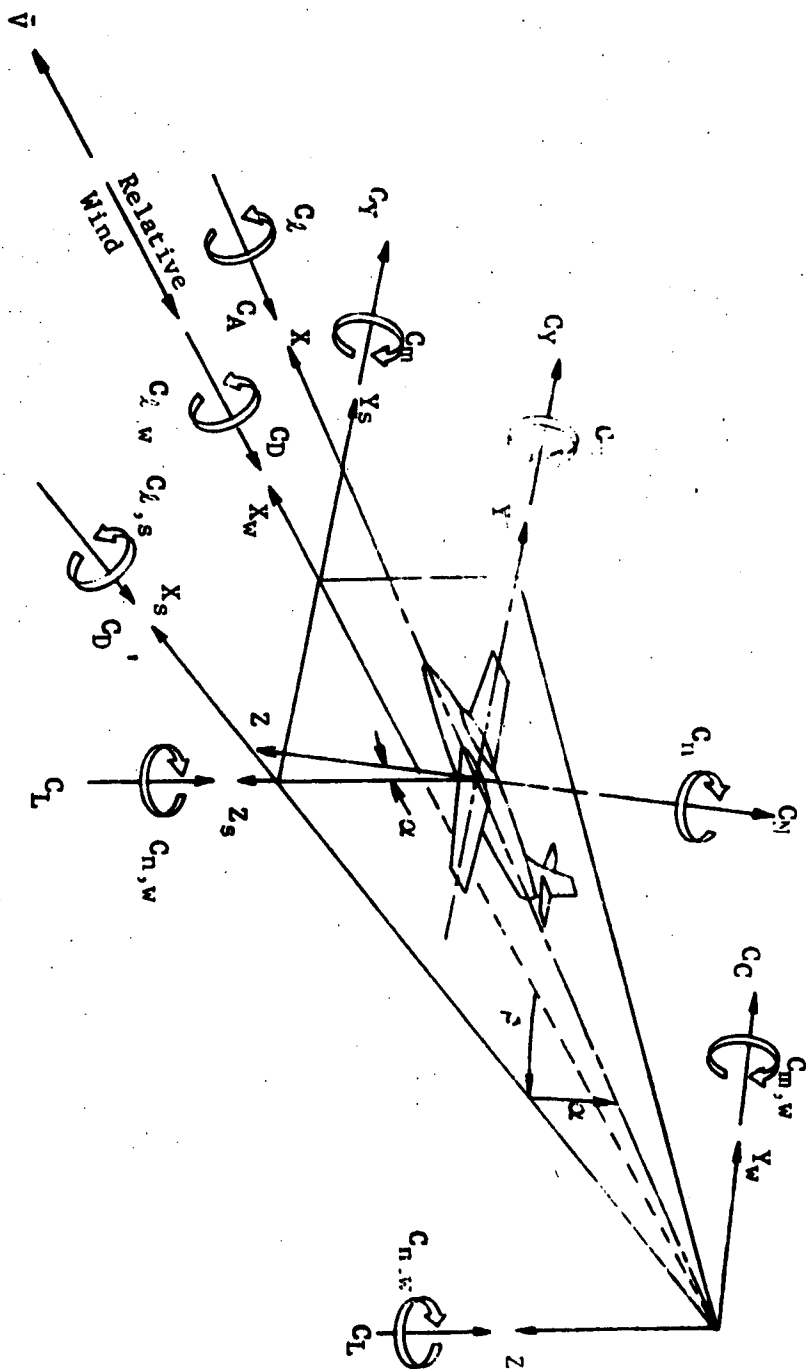


Figure 1. Axis systems, showing direction and sense of force and moment coefficients, angle of attack, and sideslip angle

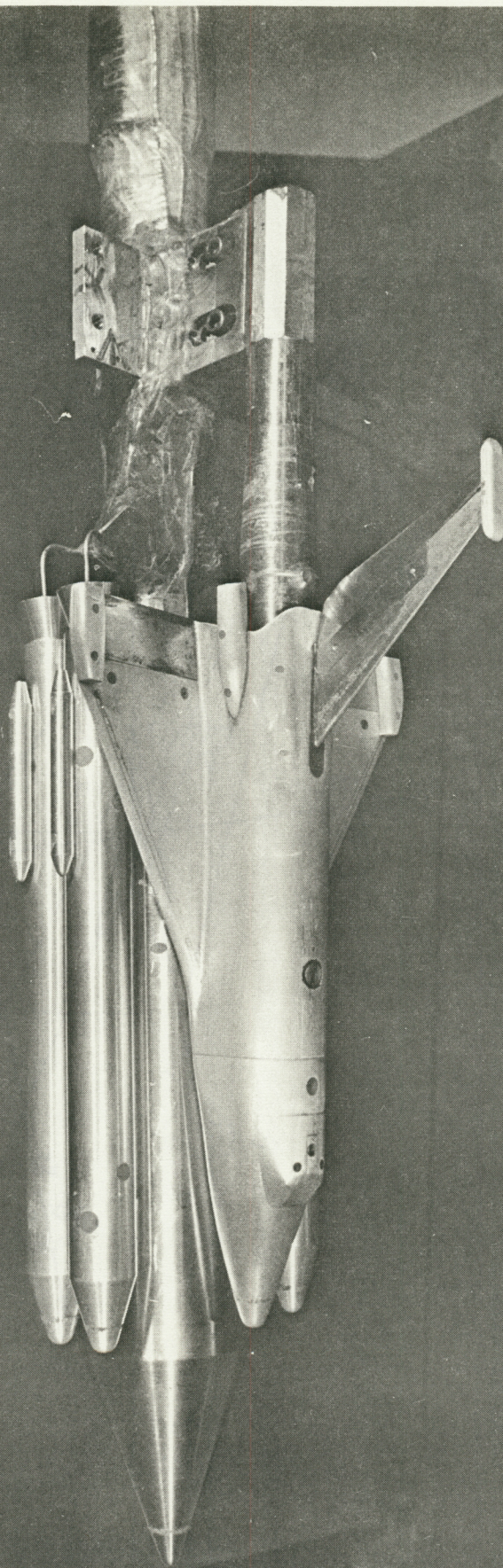
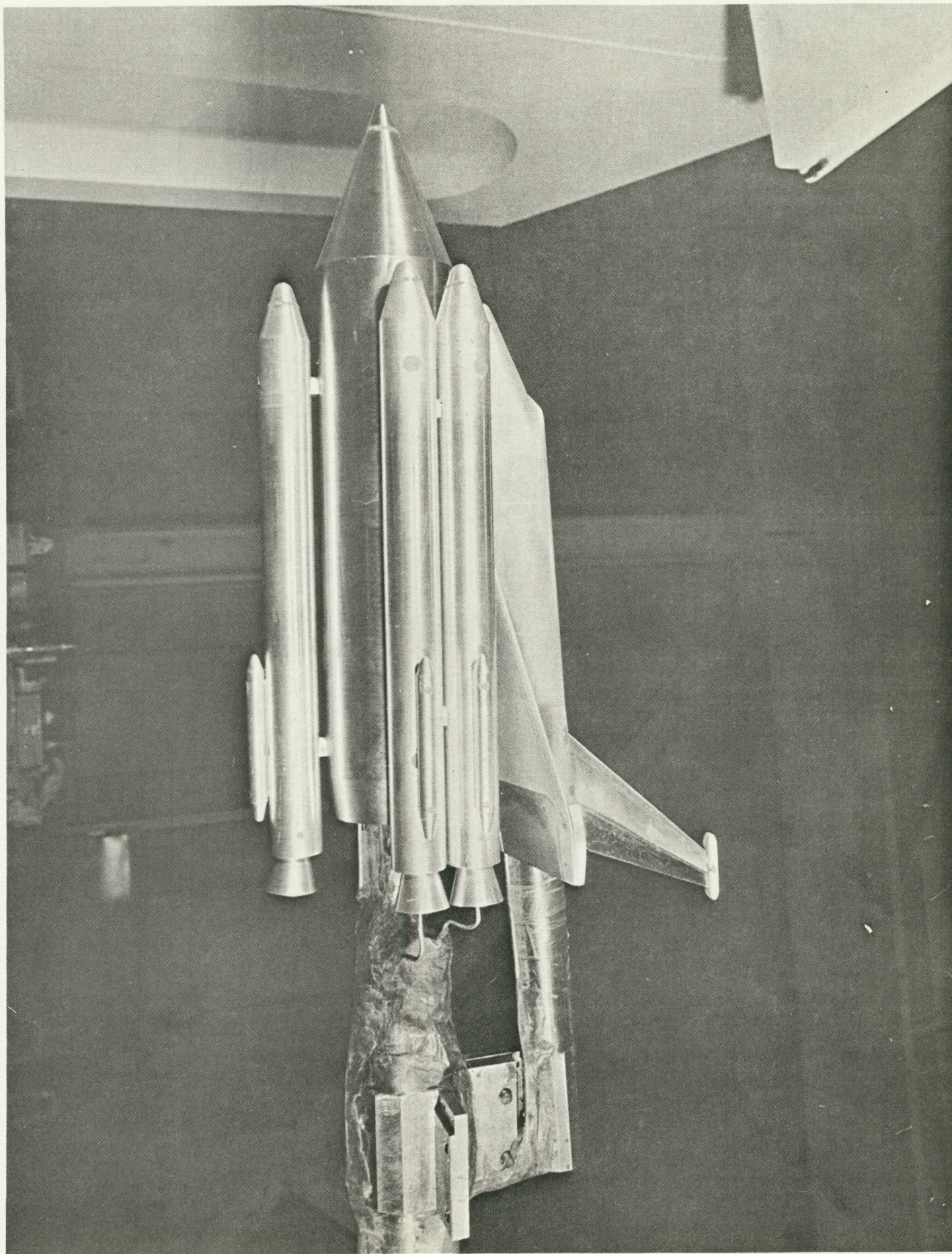
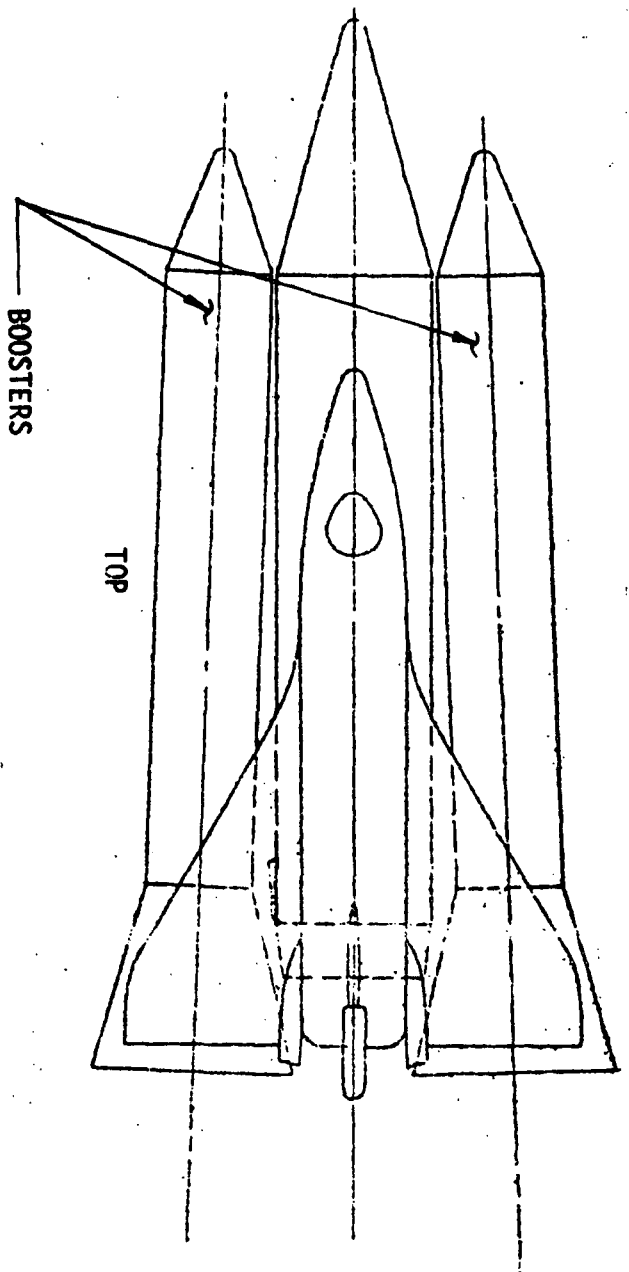


Figure 2. Photograph of Configuration (01)F¹₄B/A1-4

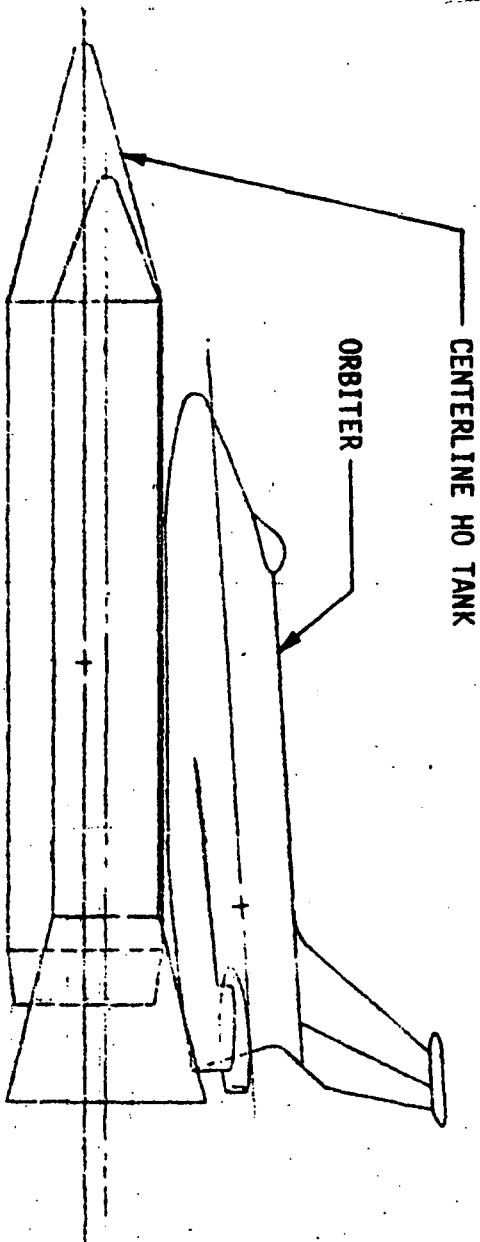
Figure 3. Photograph of Configuration (01) T₄B7A1-5



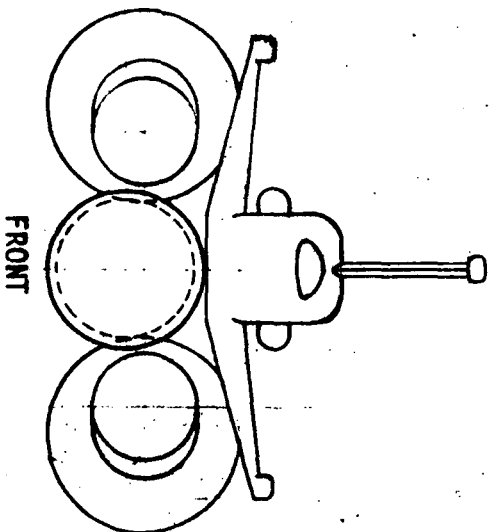


TOP

ASCENT CONFIGURATION
GENERAL ARRANGEMENT
(B_1, T_1, O_1)



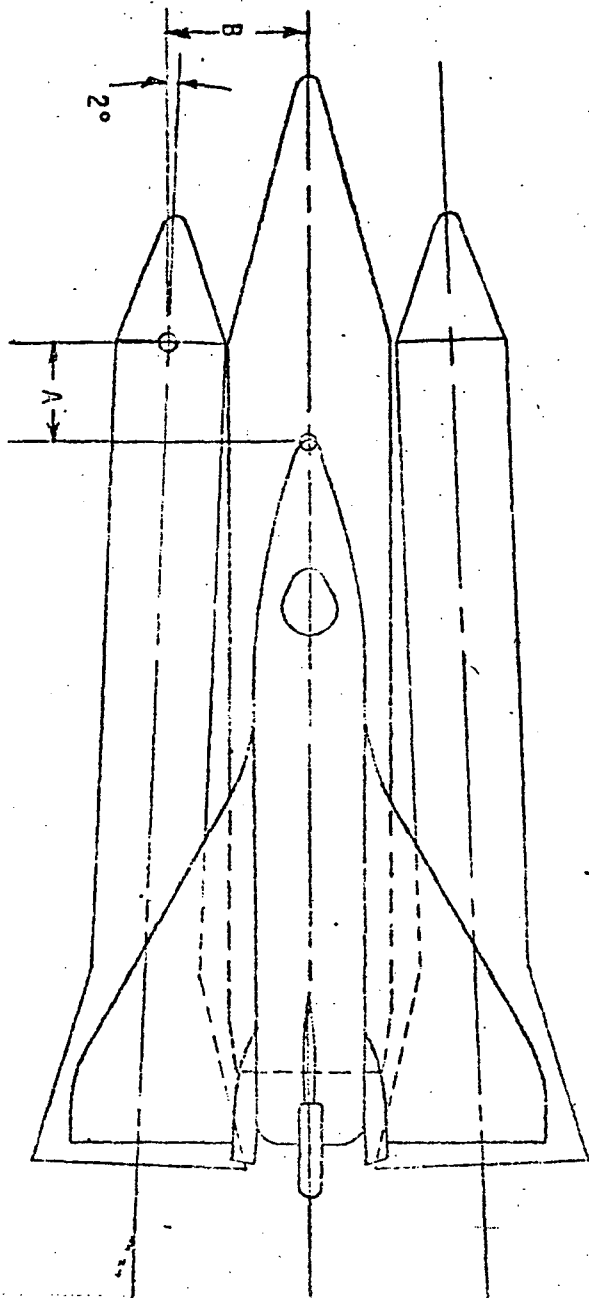
SIDE



FRONT

Figure 4. General Arrangement-Ascent Configuration $O_1 T_1 B_1$

B_1 OR B_5 BOOSTER LOCATION



DIMENSION	TANK	
	T1 & T2	T3
A	1.080	1.360
B	1.560	1.628
C	1.282	1.340

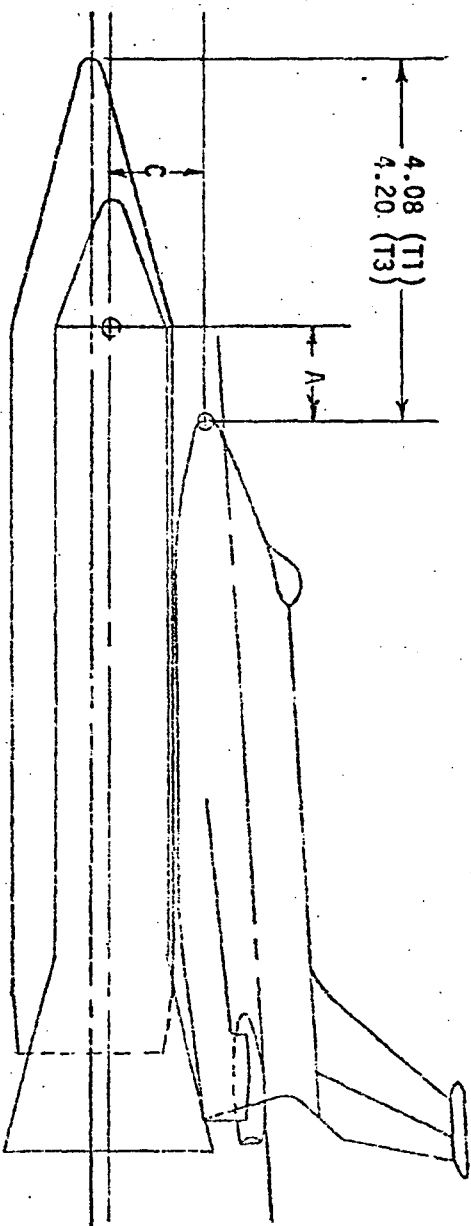
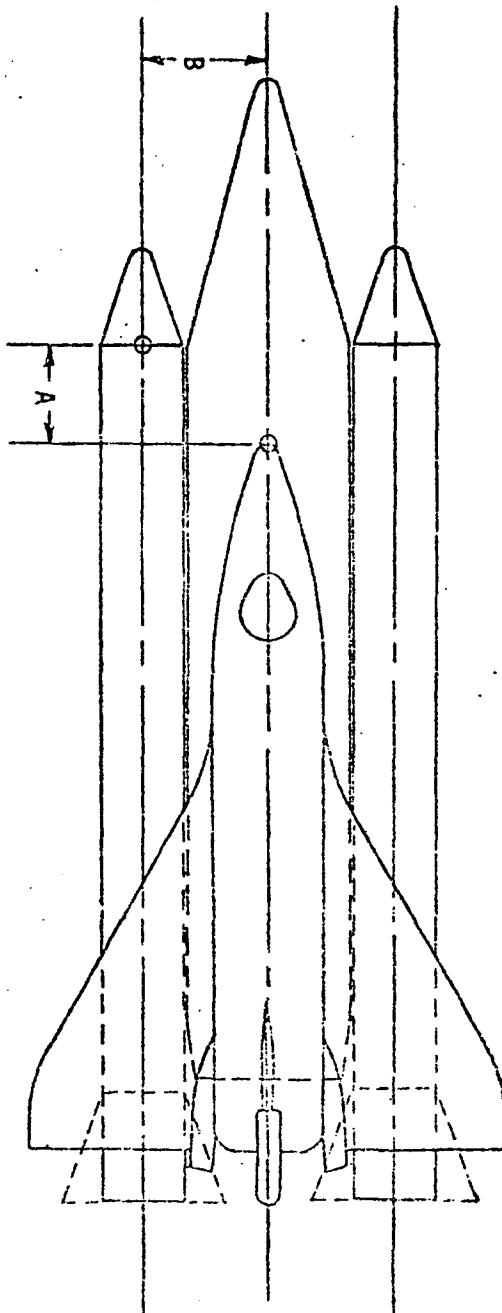


Figure 5. General Arrangement-Ascent Configuration
With Booster B_1 or B_5

B_2 AND B_{2S} BOOSTERS LOCATION



DIMENSION	TANK	
	T1 & T2	T3
A	1.080	-1.522
B	1.420	1.483
C	1.072	1.080

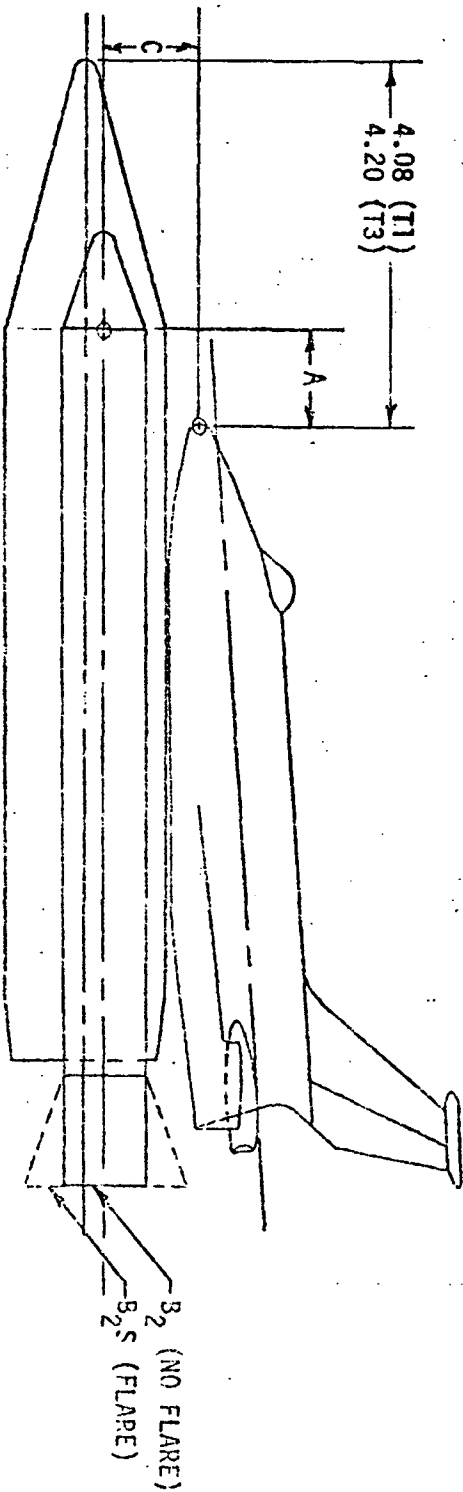
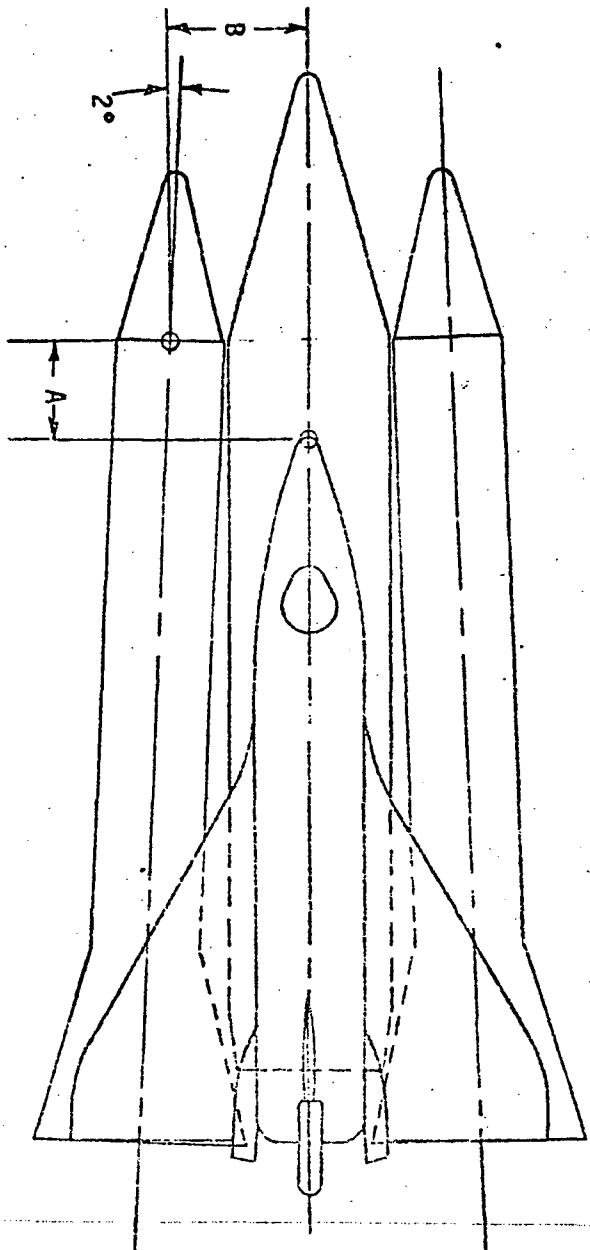


Figure 6. General Arrangement-Ascent Configuration with Booster B_2 or B_{2S}

B₃ BOOSTER LOCATION



DIMENSION	TANK	
	T1 & T2	T3
A	0.682	0.962
B	1.560	1.628
C	1.282	1.340

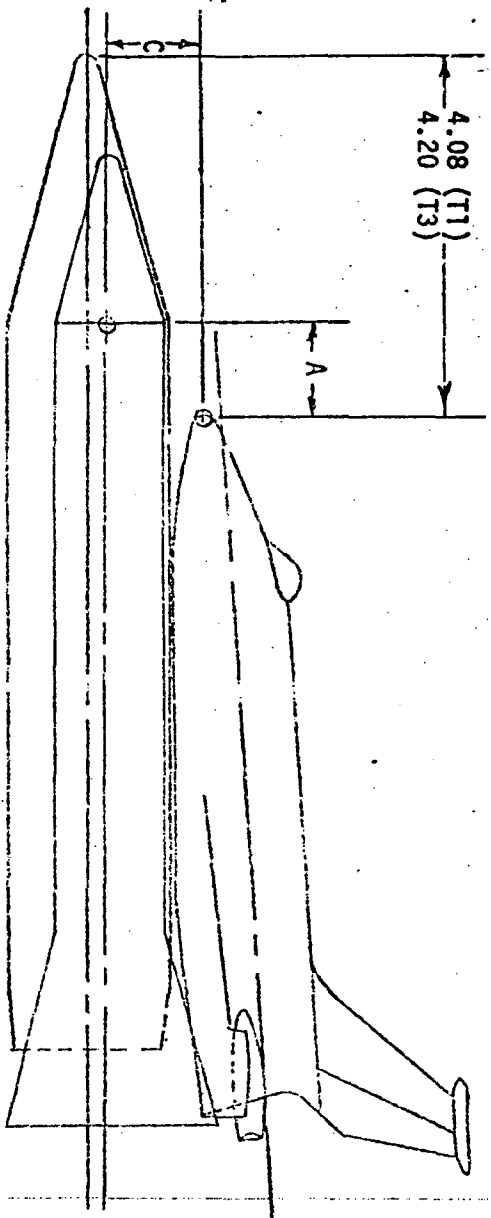
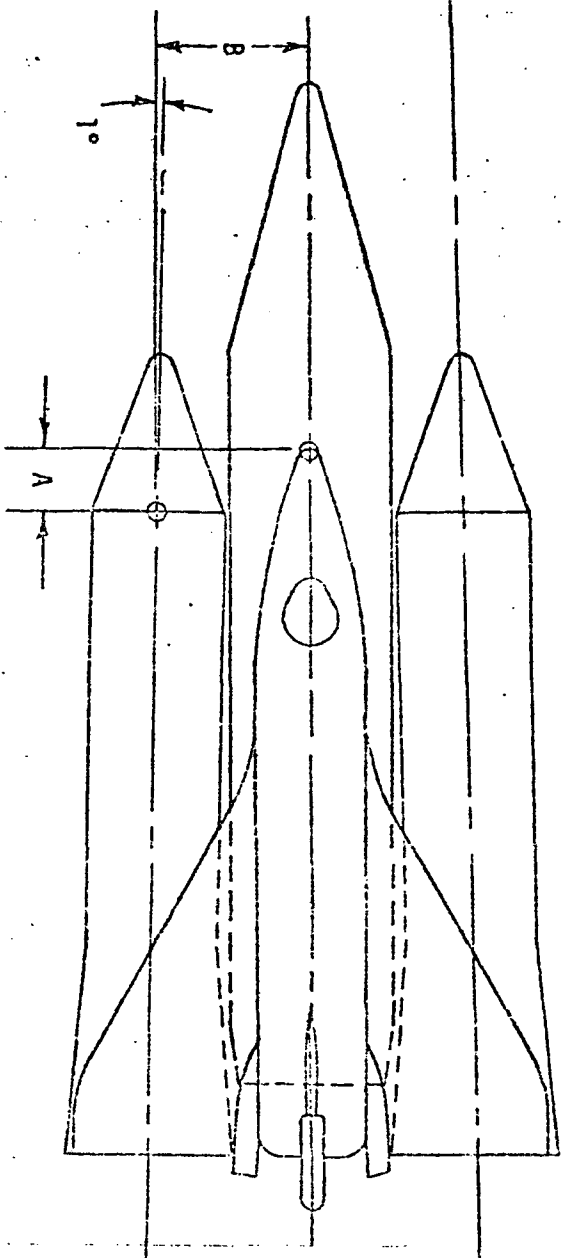


Figure 7. General Arrangement-Ascent Configuration with Booster B₃

B₄ BOOSTER LOCATION



DIMENSION	TANK	
	T1 & T2	T3
A	0.640	0.757
B	1.685	1.753
C	1.091	1.091

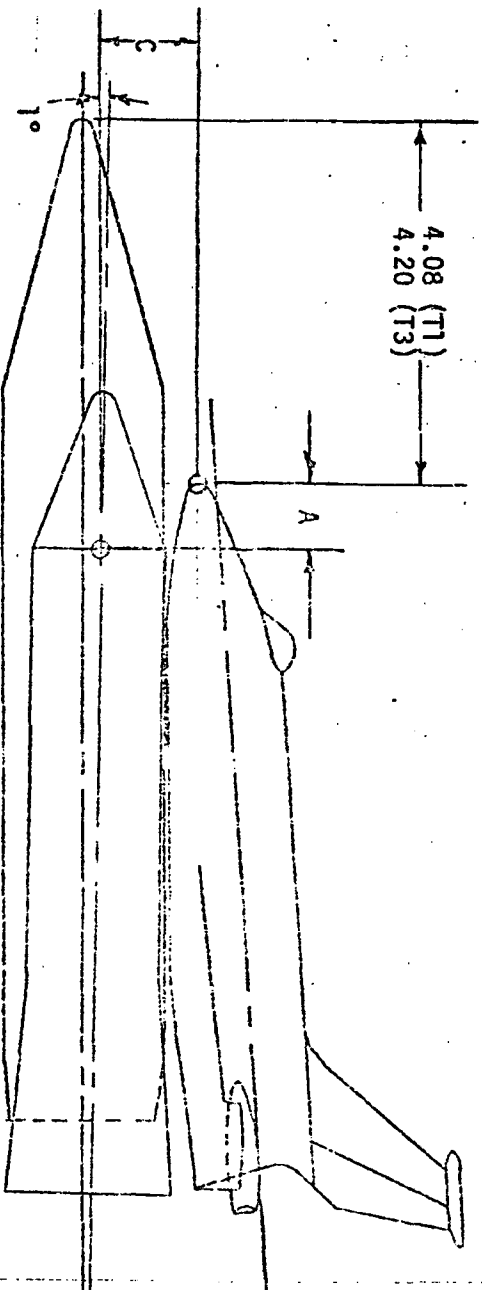


Figure 8. General Arrangement-Ascent Configuration with Booster B₄

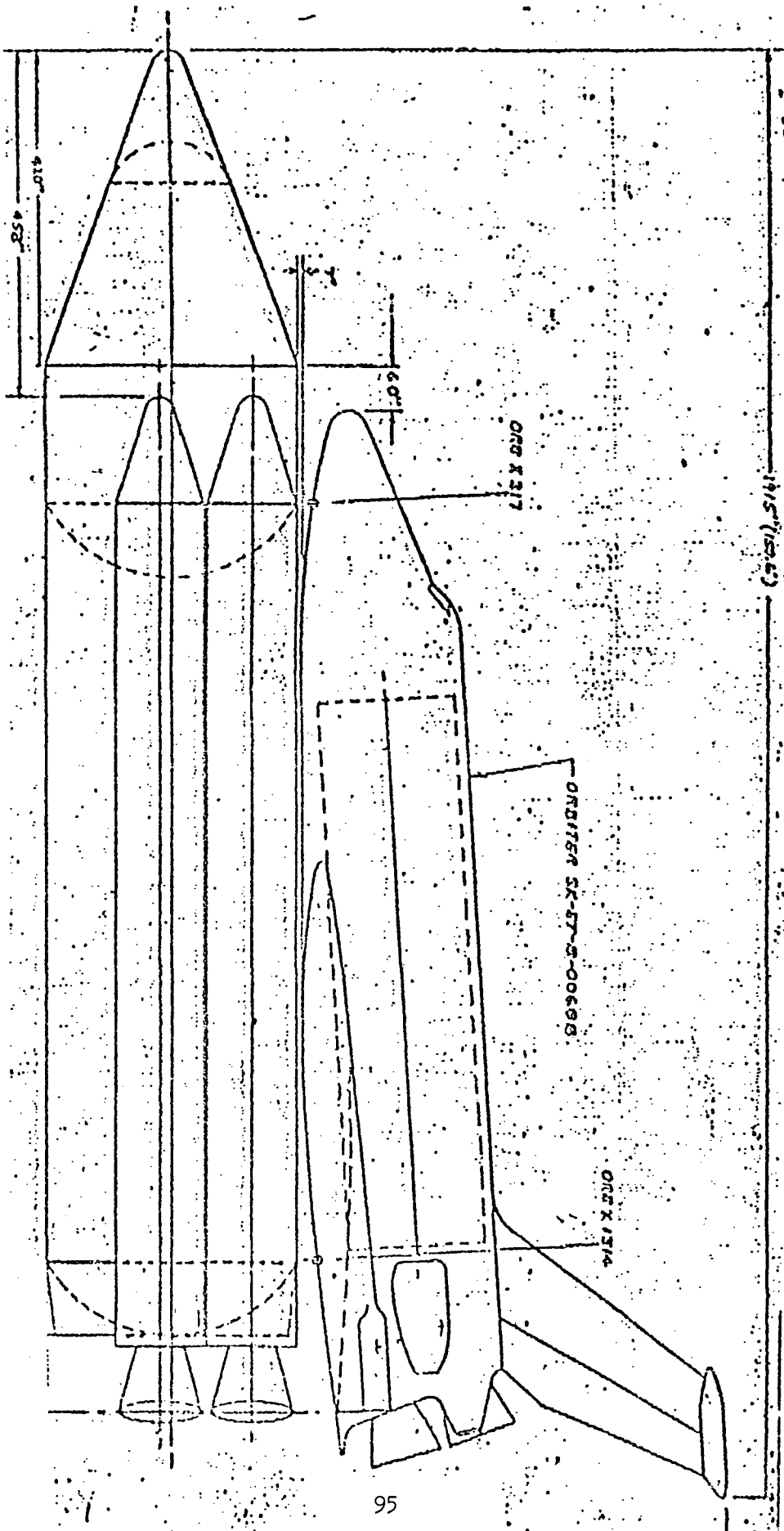


Figure 9. General Arrangement-Ascent Configuration
OLTVB7-4 (Side View)

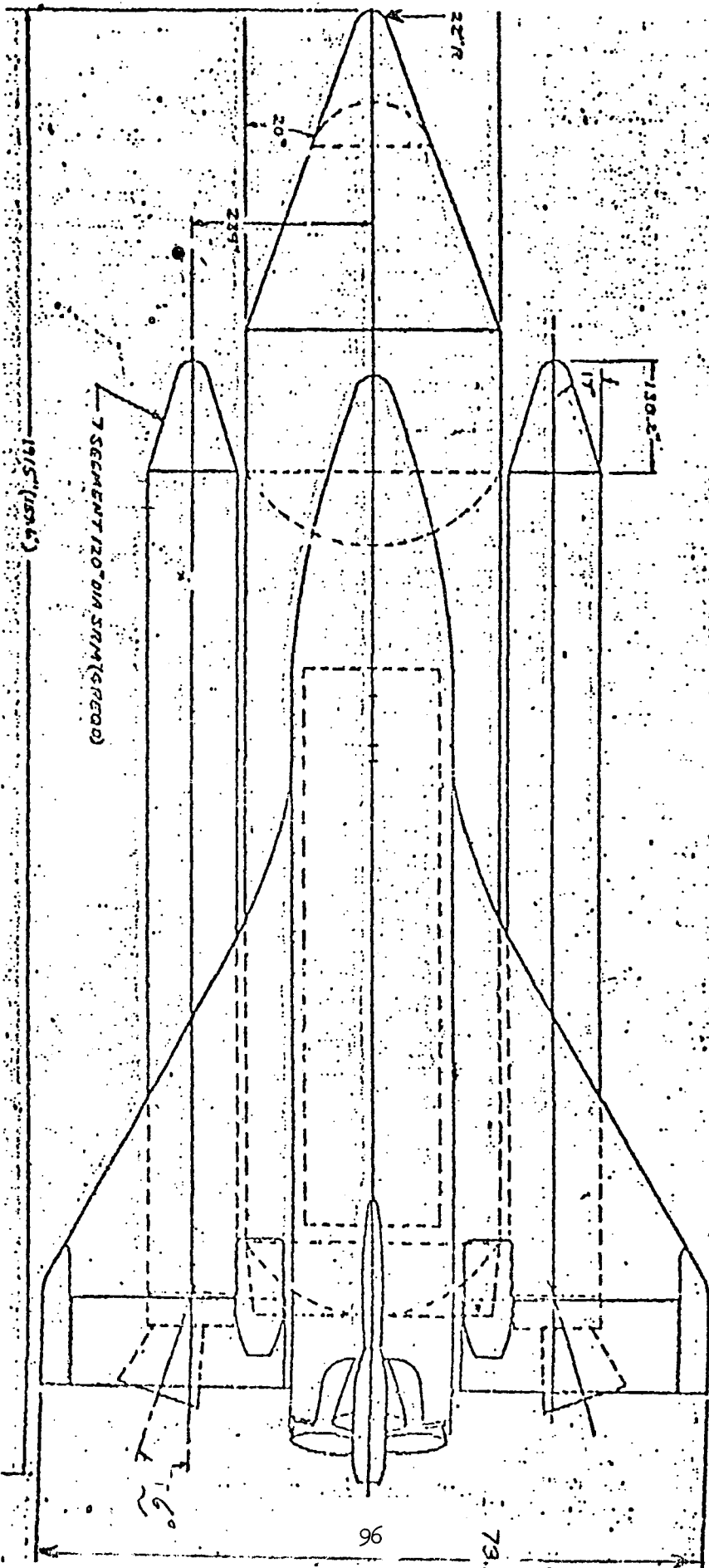
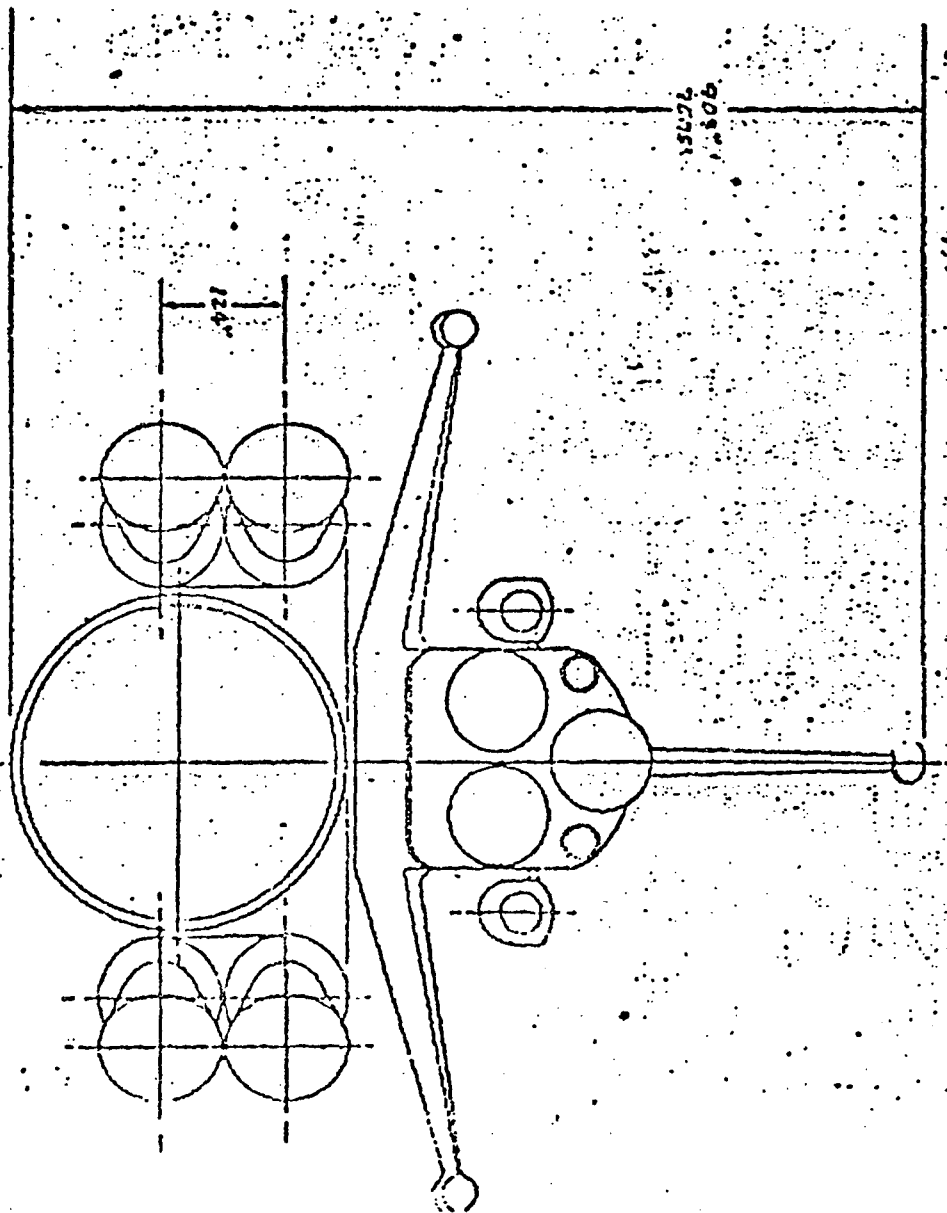


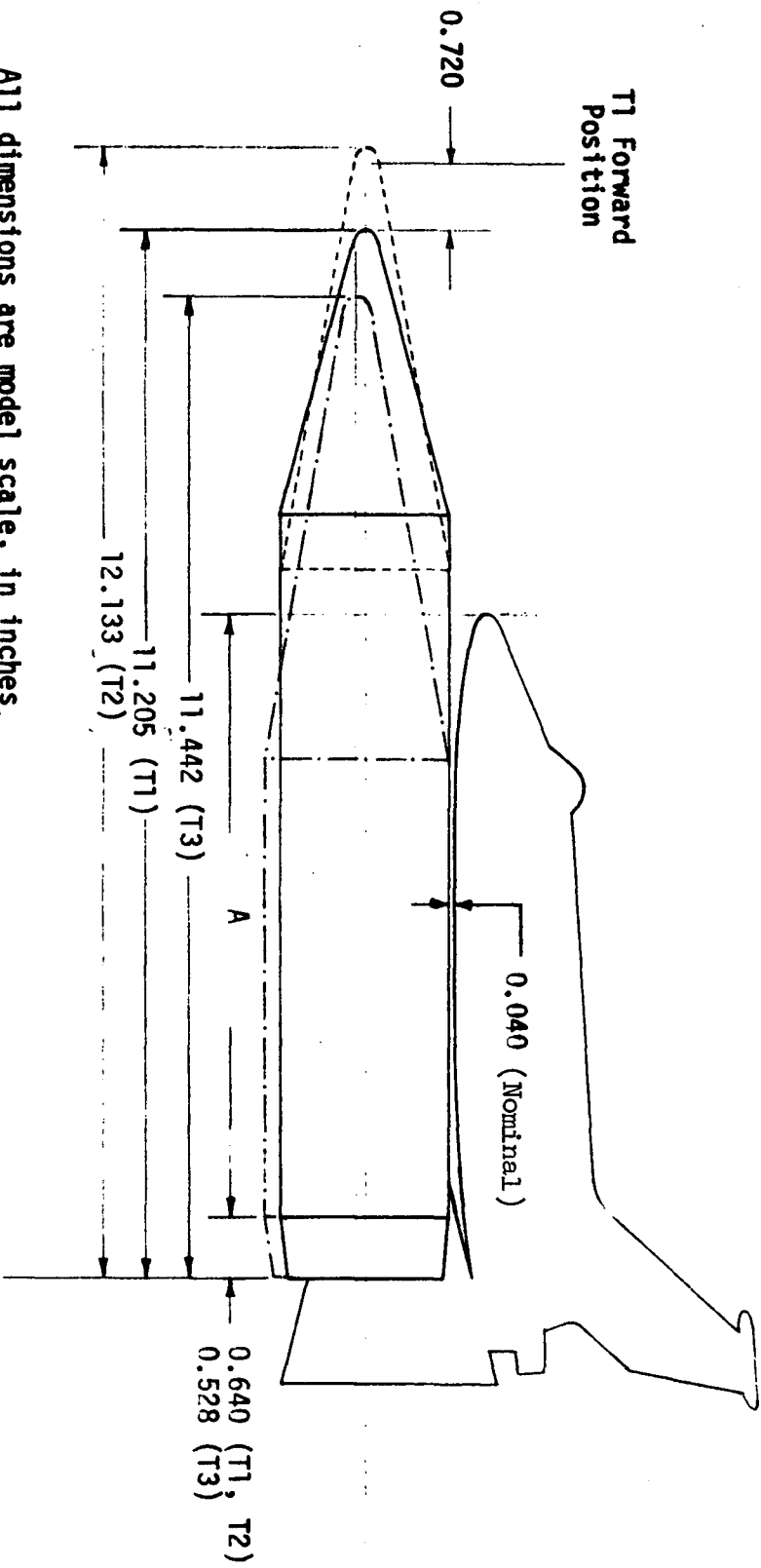
Figure 10. General Arrangement-Ascent Configuration
 0174B7-4 (Top View)

Figure 11. General Arrangement-Ascent Configuration 01T4B7-4
(Rear View)



CENTERLINE HO TANK LOCATIONS

Orbiter Nose
X (200)
1.200

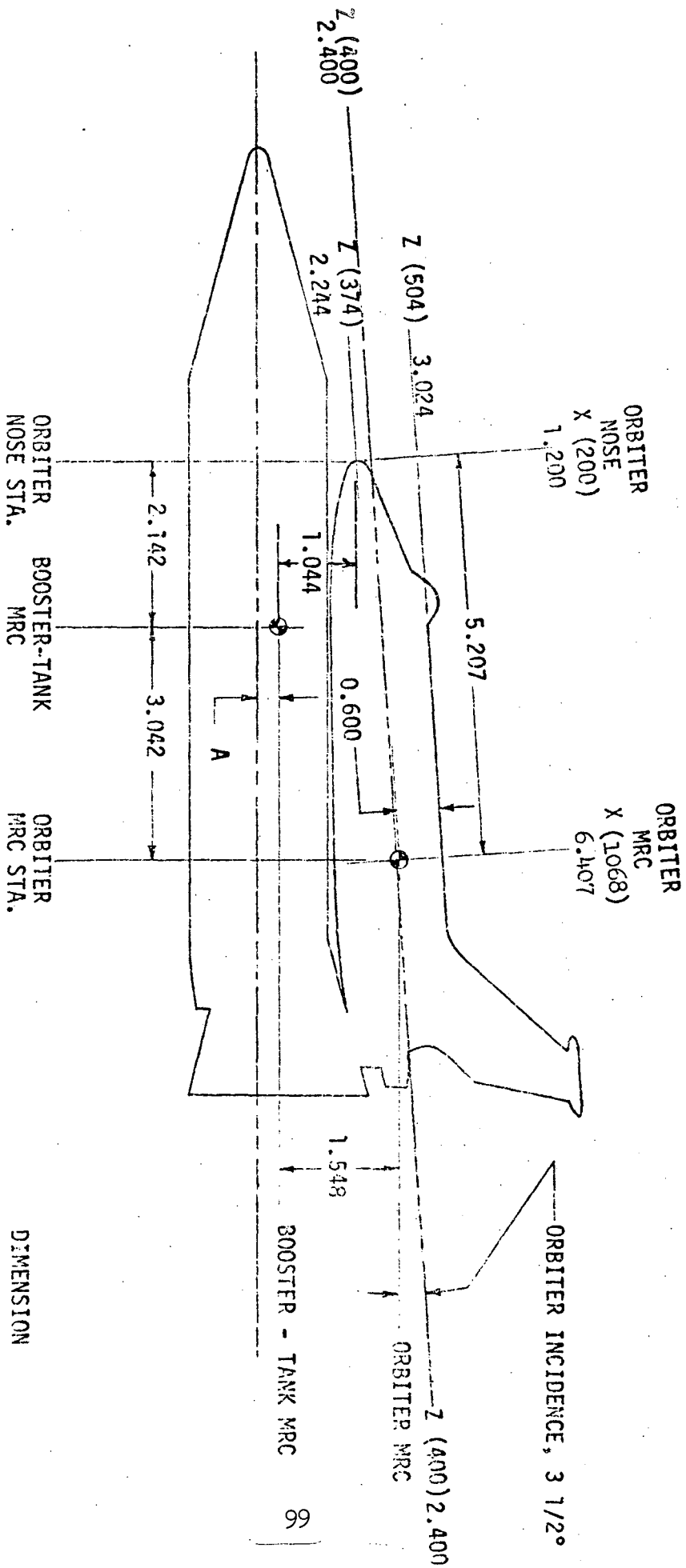


All dimensions are model scale, in inches.
Orbiter stations are given in both full
scale and model scale dimensions.

TANK	A
T1	6.485
T2	6.485
T3	6.714

Figure 12. Centerline HO Tank Locations

MOMENT TRANSFER DIAGRAM ASCENT CONFIGURATION

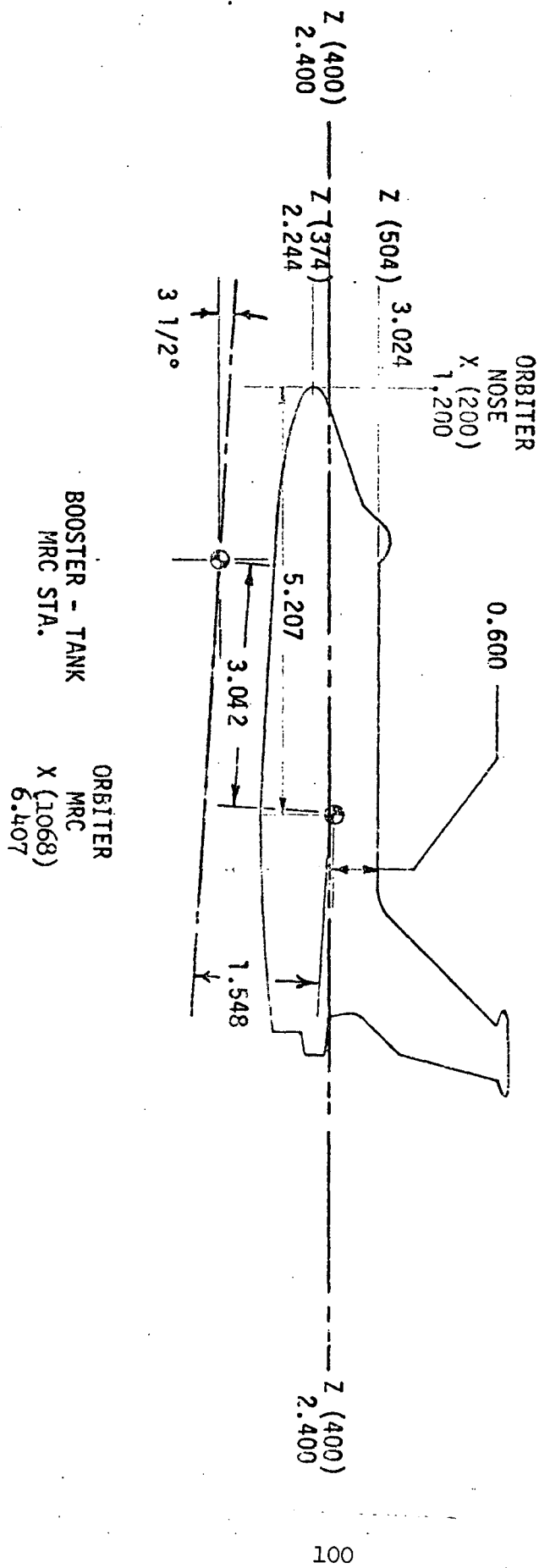


All dimensions are model scale, in inches
Orbiter stations are given in both full
scale and model scale dimensions.

TANK	A
T1	0.268
T2	0.288
T3	0.357

Figure 13. Moment Transfer Diagram for Ascent Configuration

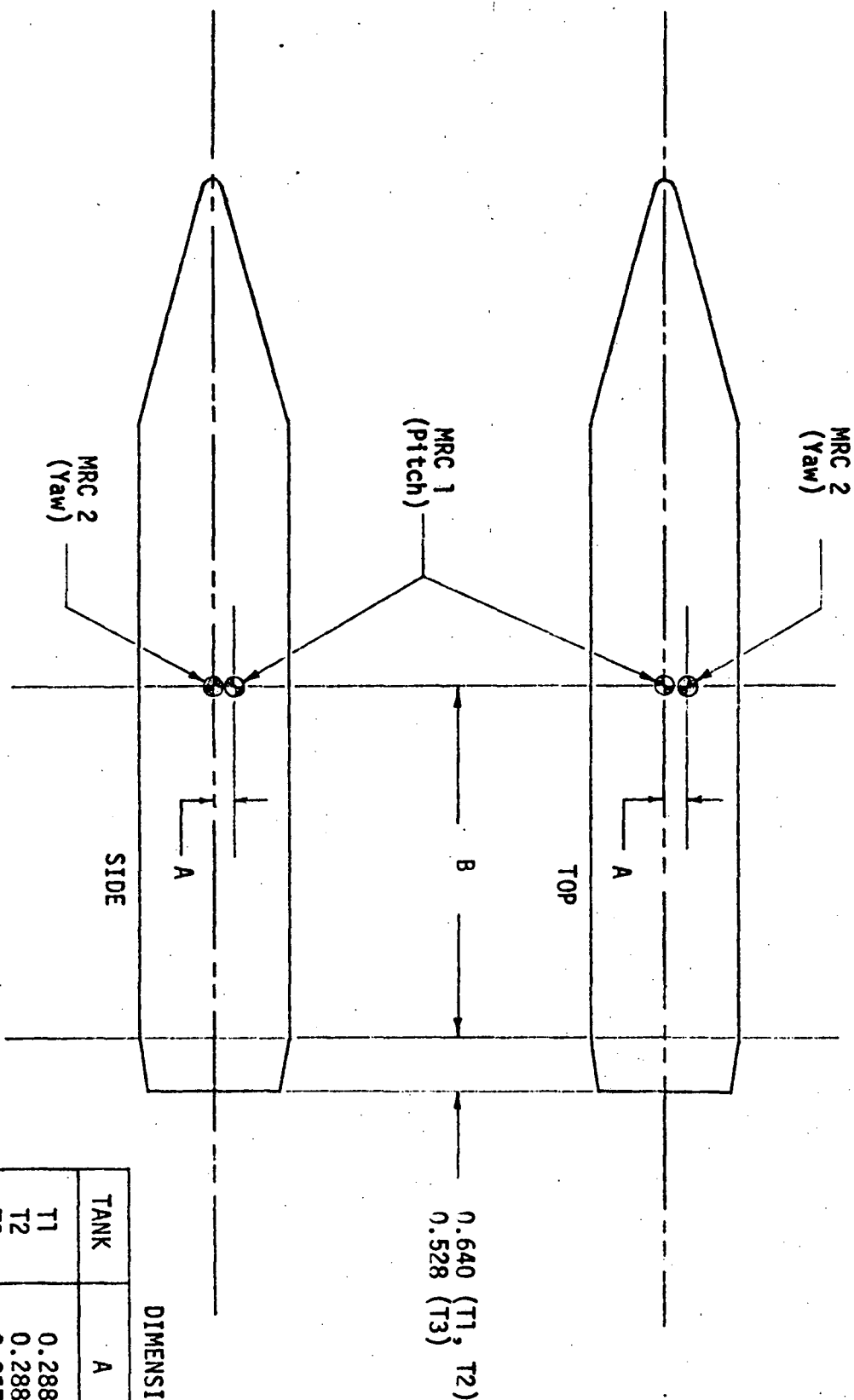
MOMENT TRANSFER DIAGRAM ORBITER ALONE



All dimensions are model scale, in inches
Orbiter stations are given in both full
scale and model scale dimensions.

Figure 14. Moment Transfer Diagram for Orbiter Alone

MOMENT TRANSFER DIAGRAM CENTERLINE TANK ALONE

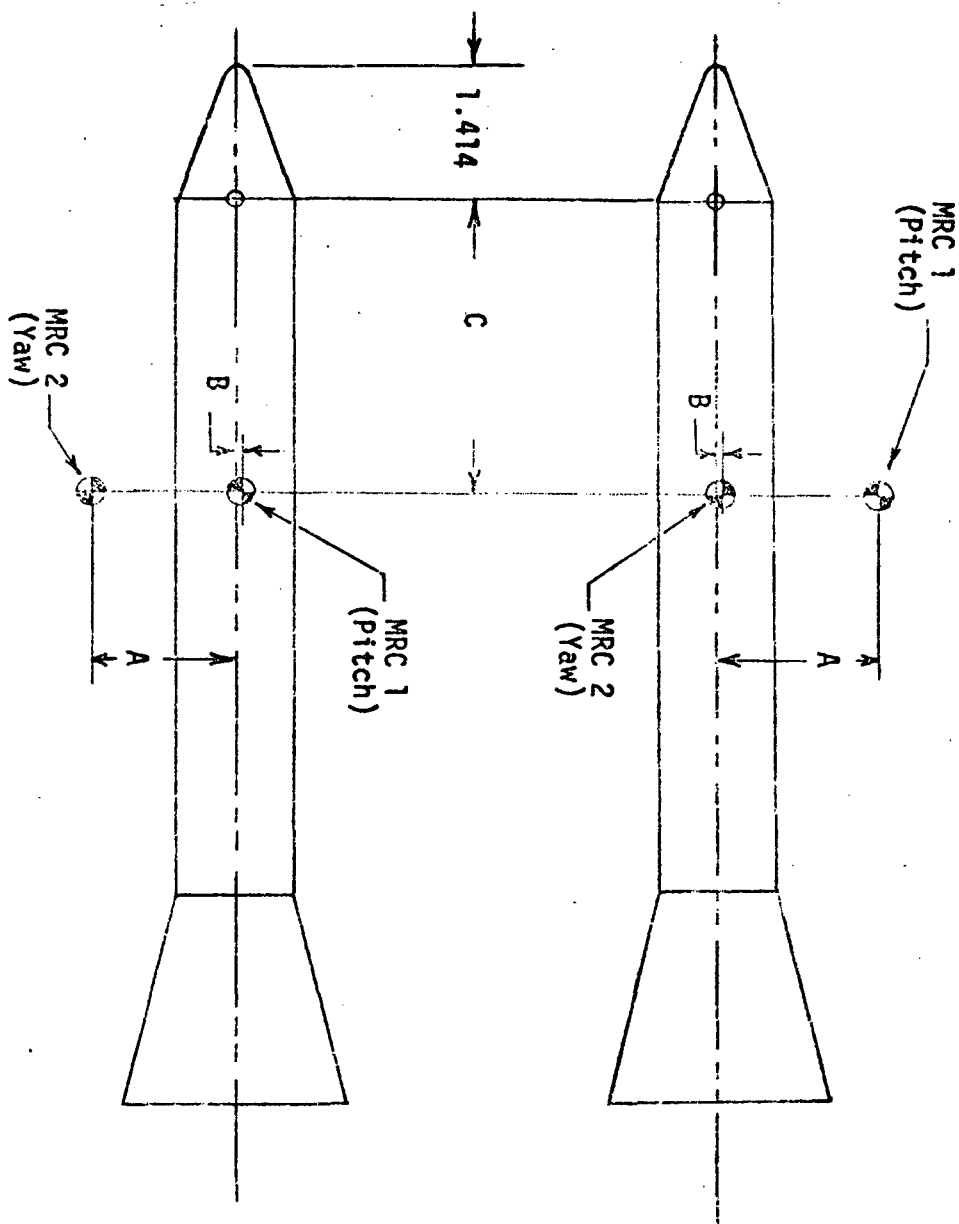


TANK	A	B
T1	0.288	4.243
T2	0.288	4.243
T3	0.357	4.572

All dimensions are model scale, in inches

Figure 15. Moment Transfer Diagram for Centerline Tank Alone

MOMENT TRANSFER DIAGRAM B₁ Booster Alone



TANK	Dimension		
	A	B	C
T ₁	1.664	0.238	3.222
T ₂	1.664	0.238	3.222
T ₃	1.732	0.297	3.502

Booster Alone

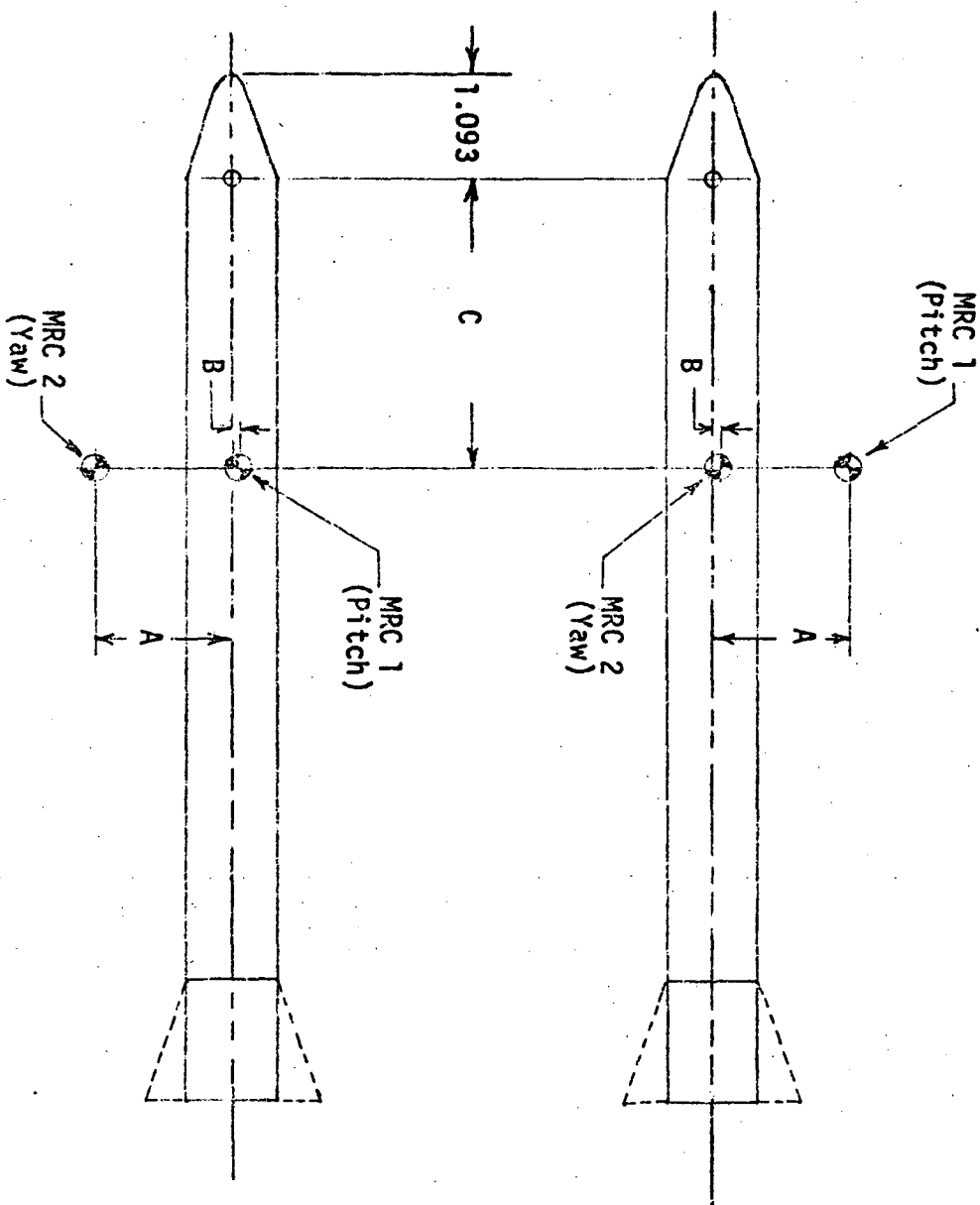
X = 4.386" From nose

Y = 0

Z = 0

Figure 16. Moment Transfer Diagram for B₁ Booster Alone

MOMENT TRANSFER DIAGRAM B₂ and B₂S Boosters Alone



	DIMENSION		
TANK	A	B	C
T ₁	1.420	0.058	3.222
T ₂	1.420	0.058	3.222
T ₃	1.483	0.037	3.664

Booster Alone

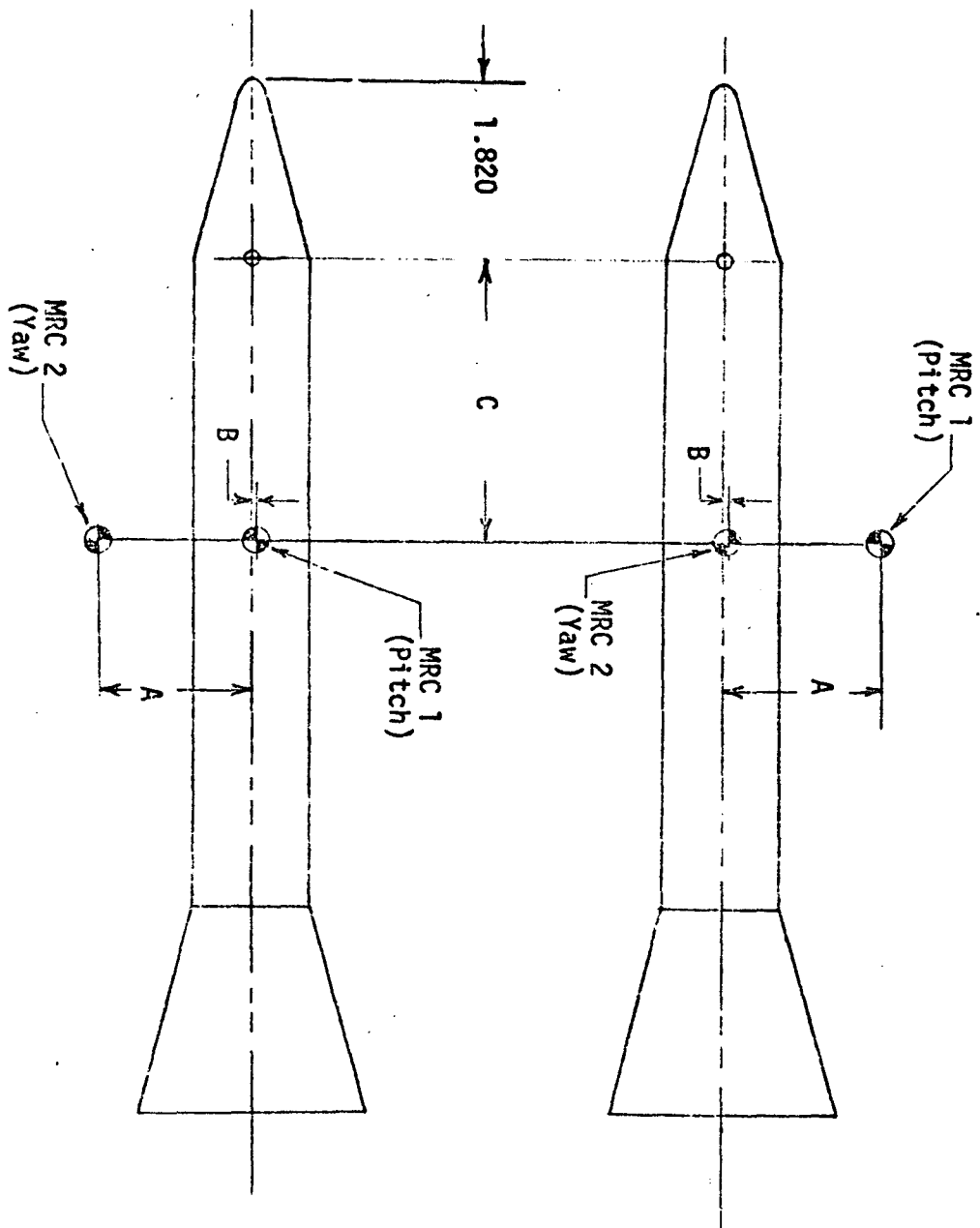
X = 4.091" From nose

Y = 0

Z = 0

Figure 17. Moment Transfer Diagram for B₂ & B₂S Boosters Alone

MOMENT TRANSFER DIAGRAM B₃ Booster Alone



TANK	DIMENSION		
	A	B	C
T ₁	1.664	0.238	2.824
T ₂	1.664	0.238	2.824
T ₃	1.732	0.297	3.104

Booster Alone

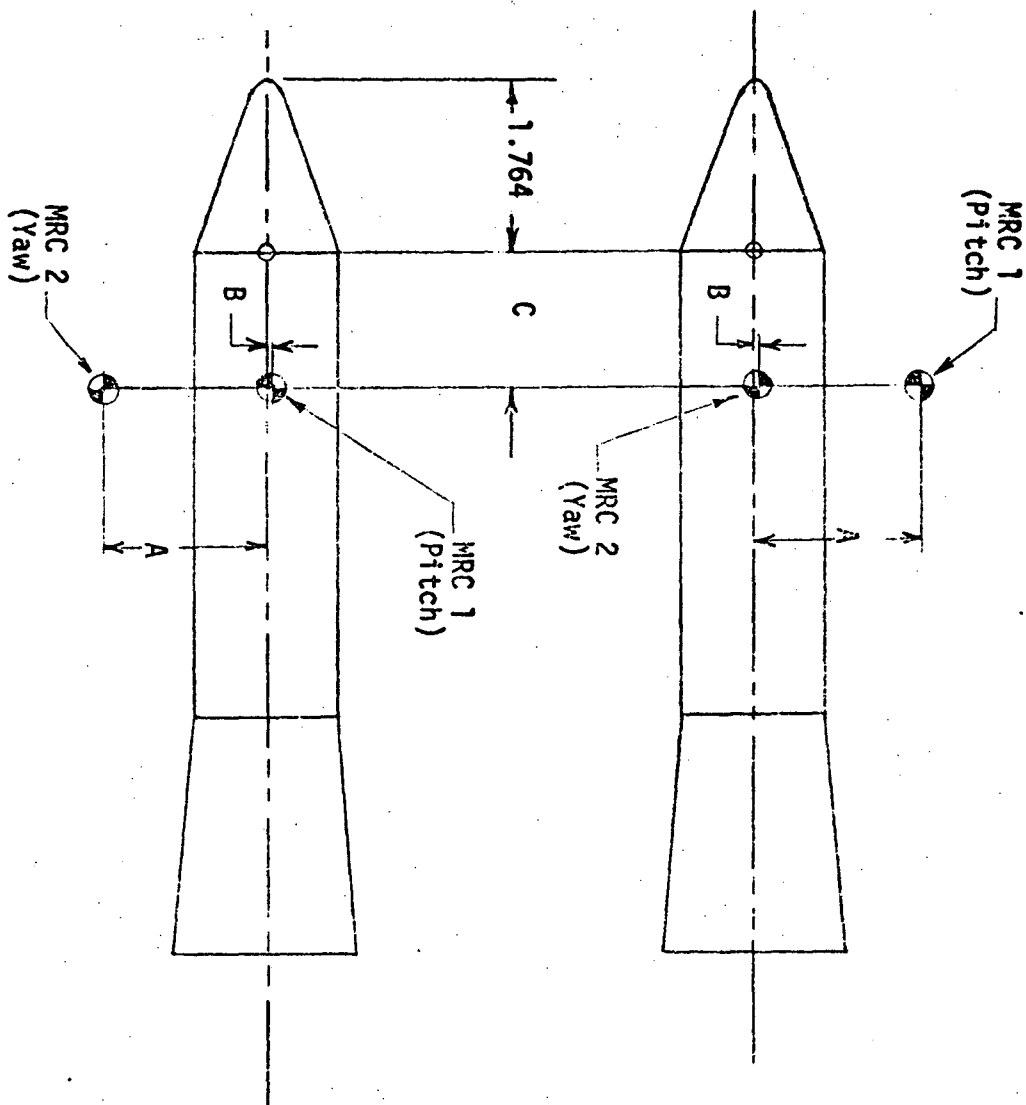
X = 4.386" From nose

Y = 0

Z = 0

Figure 18. Moment Transfer Diagram for B₃ Booster Alone

MOMENT TRANSFER DIAGRAM B₄ Booster Alone



	DIMENSION		
TANK	A	B	C
T ₁	1.709	0.047	1.502
T ₂	1.709	0.047	1.502
T ₃	1.774	0.047	1.385

Booster Alone

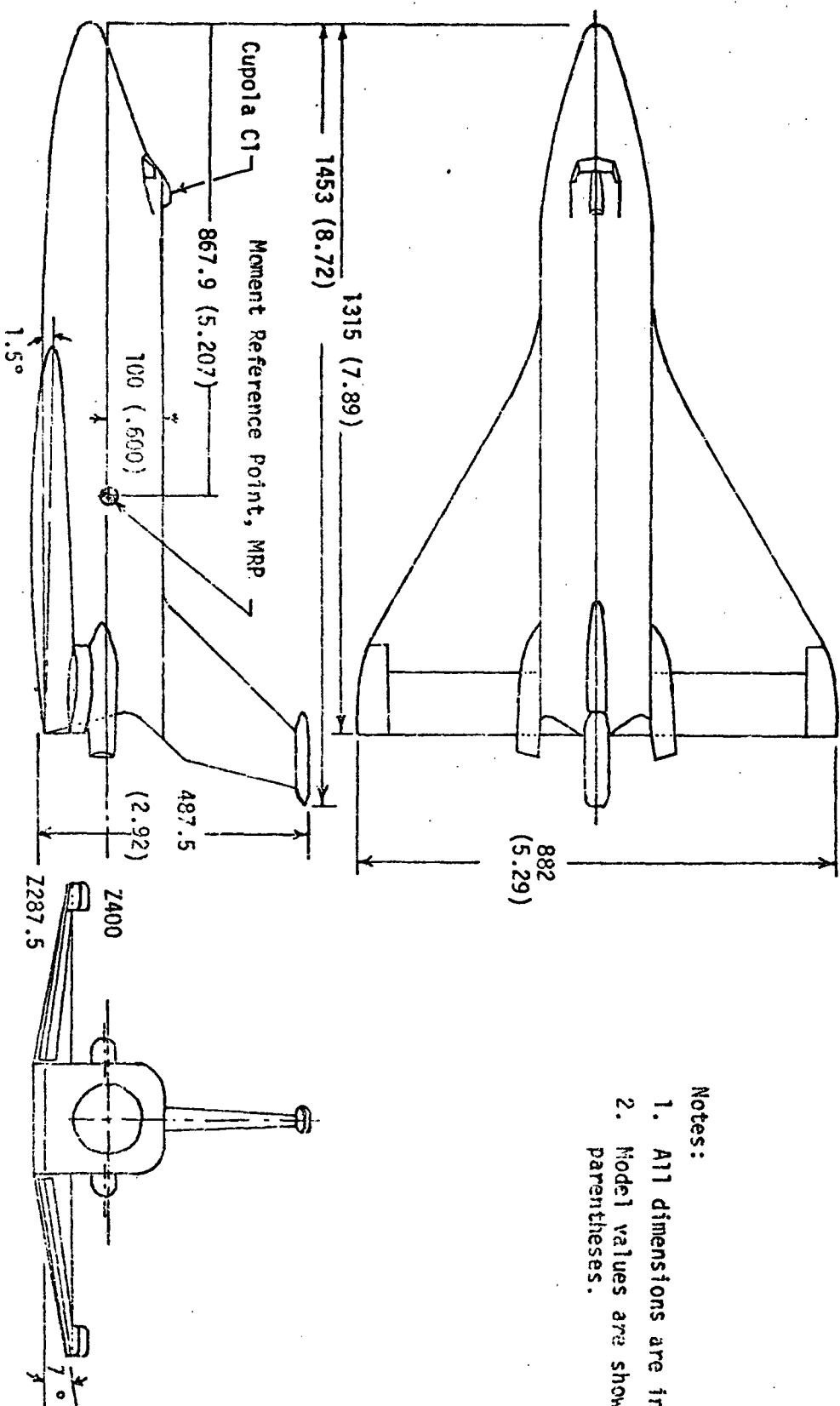
X = 3.152" From nose

Y = 0

Z = 0

Figure 19. Moment Transfer Diagram for B₄ Booster Alone

GENERAL ARRANGEMENT O4OA ORBITER



- Notes:
1. All dimensions are in inches
 2. Model values are shown in parentheses.

Figure 20. General Arrangement of O4OA Orbiter

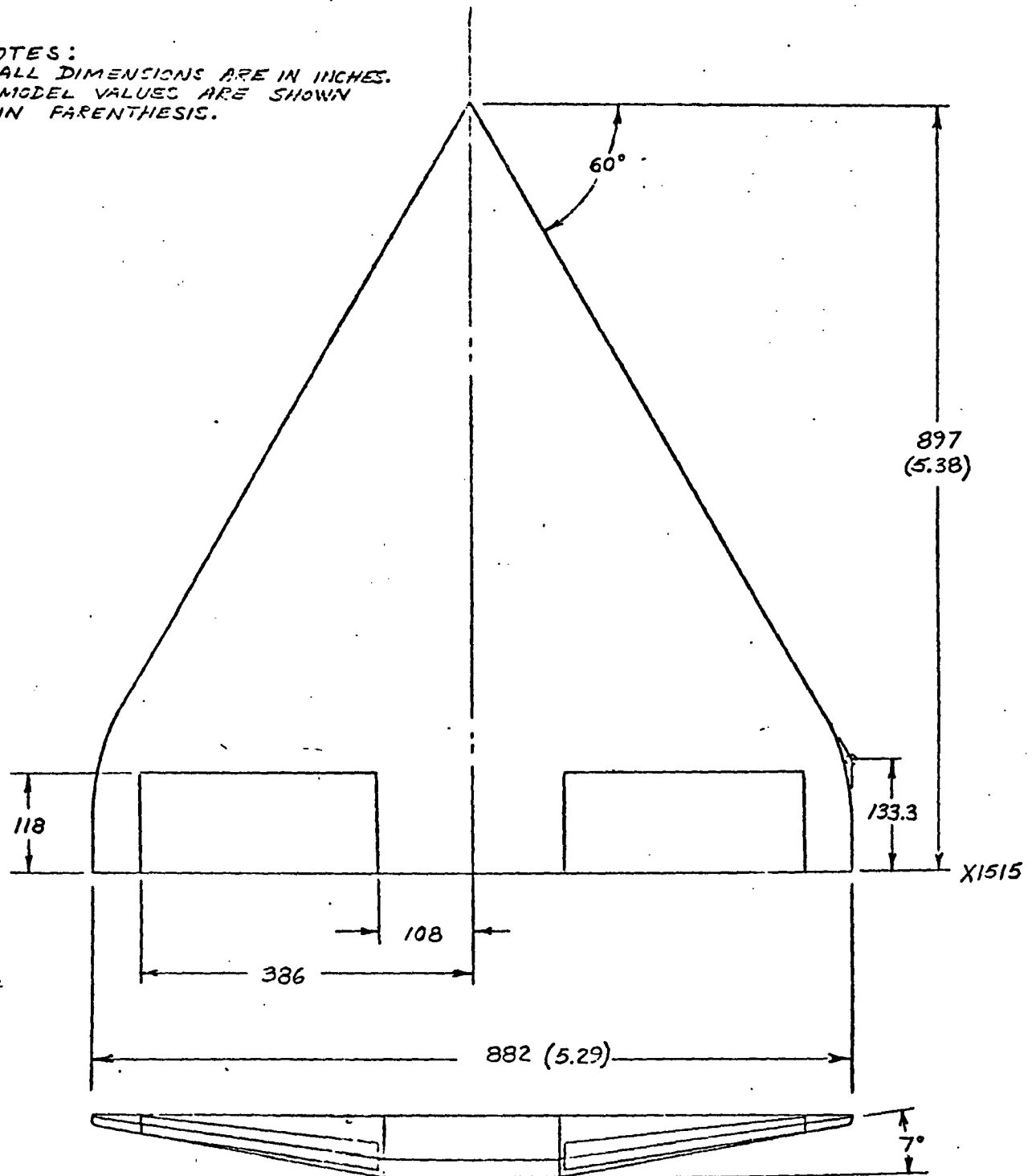
Diagram of a dome structure with labels 1200, 1314, 1404, 1515 pointing to different parts of the dome and body.



Figure 21. Orbiter Body, B₁

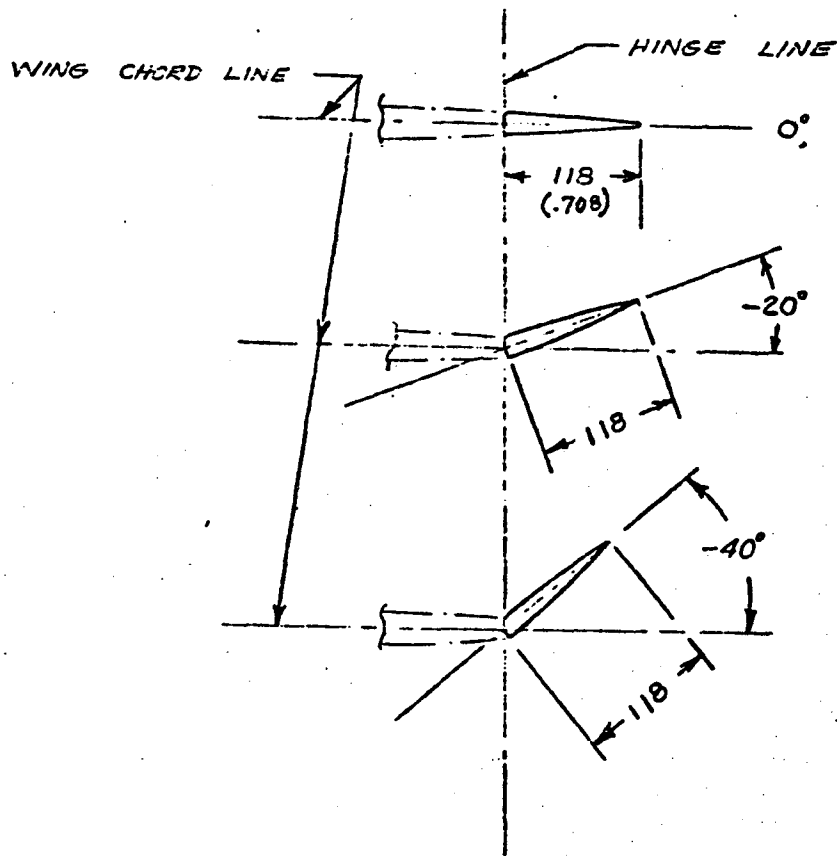
WING AND ELEVEN ~ W1

NOTES:
 1. ALL DIMENSIONS ARE IN INCHES.
 2. MODEL VALUES ARE SHOWN
 IN PARENTHESES.

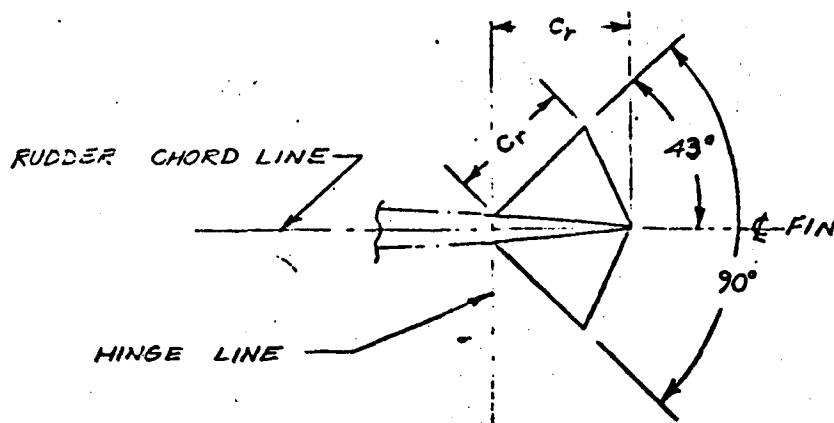


.. Figure 22. Wing and Elevon, W₁

ELEVON DEFLECTIONS



RUDDER FLARE AT A TYPICAL SECTION



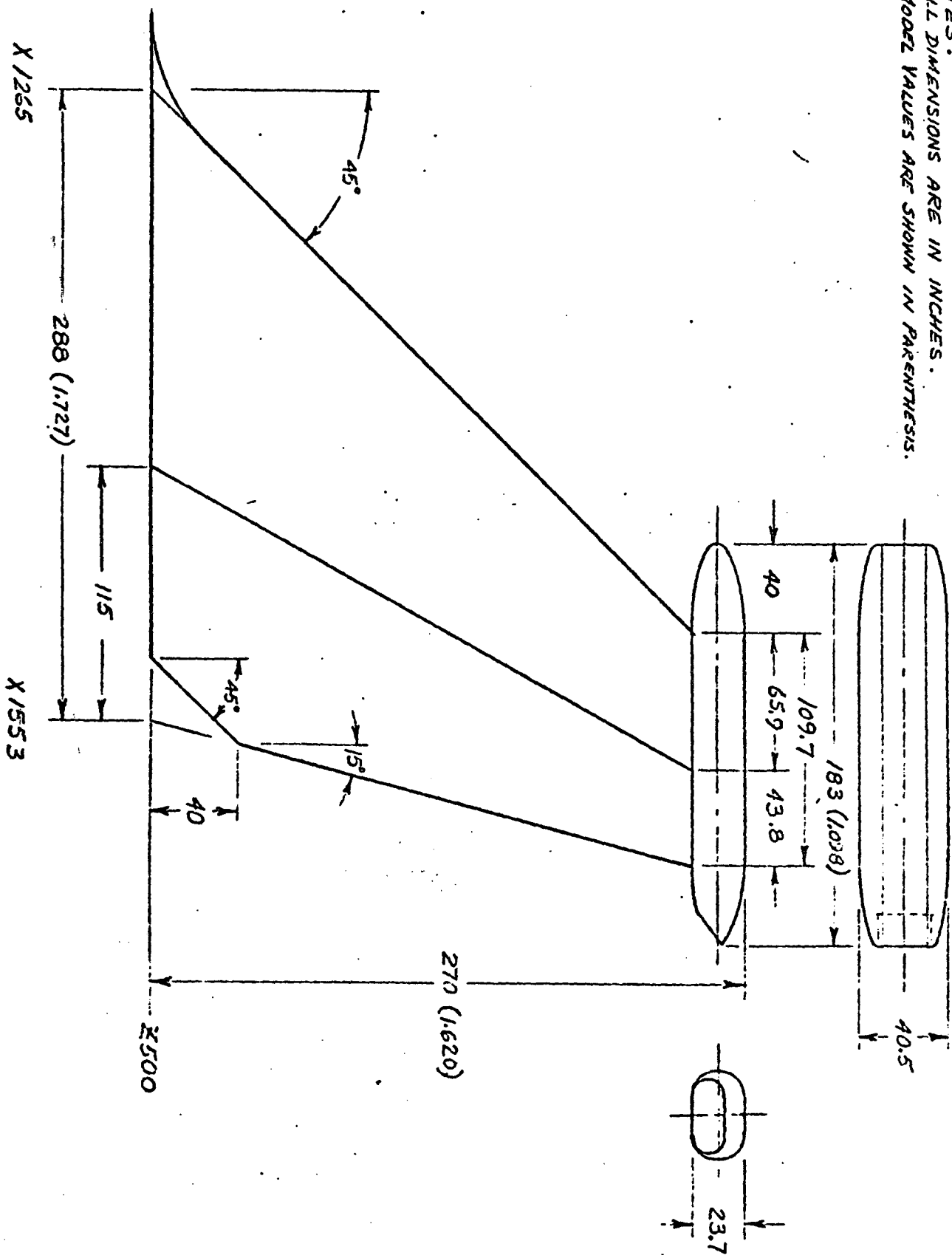
- NOTES:
1. DIMENSIONS ARE IN INCHES
 2. C_r IS RUDDER LOCAL CHORD.
 3. MODEL VALUES SHOWN IN PARENTHESES

Note: Additional rudder flare angle of $\pm 17.5^\circ$ was tested at $M = .6, .9, 1.2$ for lateral-directional data

Figure 23. Elevon Deflections and Rudder Flare

Figure 24. Vertical Fin and Rudder, V₁

NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
2. MODEL VALUES ARE SHOWN IN PARENTHESIS.



V₂ - LARGER AREA CENTERLINE VERTICAL TAIL AND RUDDER

$$S_v = 2.514 \text{ in}^2$$

$$b = 2.215 \text{ in}$$

$$\bar{c} = 1.239 \text{ in}$$

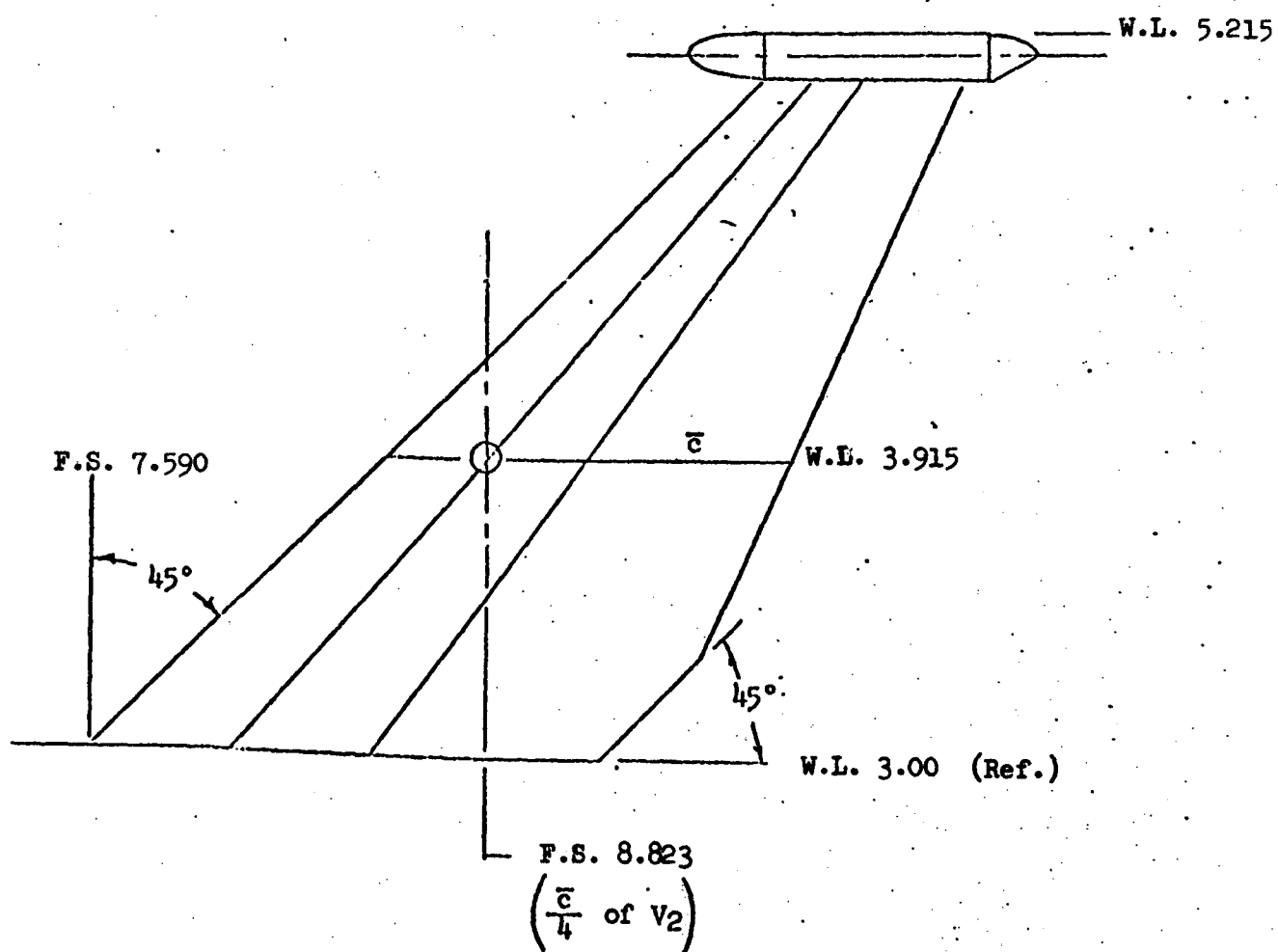
$$AR = 1.95$$

$$C_R = 1.728 \text{ in}$$

$$C_T = 0.542 \text{ in}$$

$$\lambda = 0.310$$

$$\Lambda_{LE} = 45^\circ$$

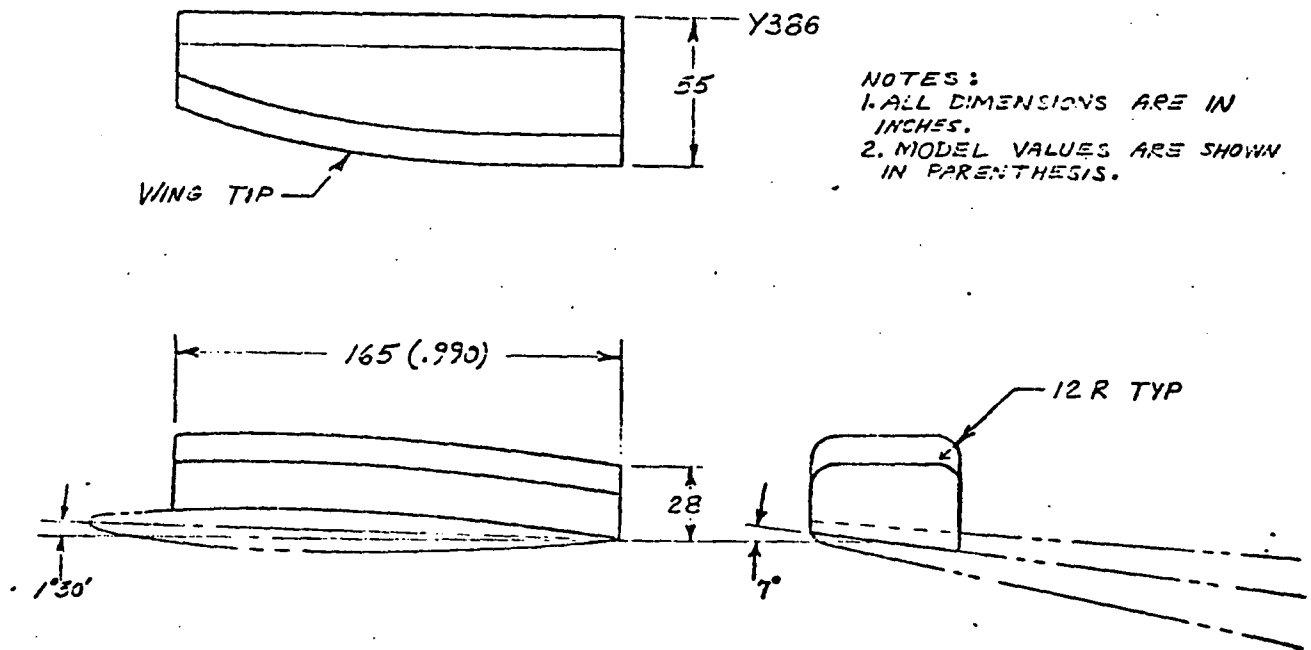


Note: All dimensions are model scale in inches.

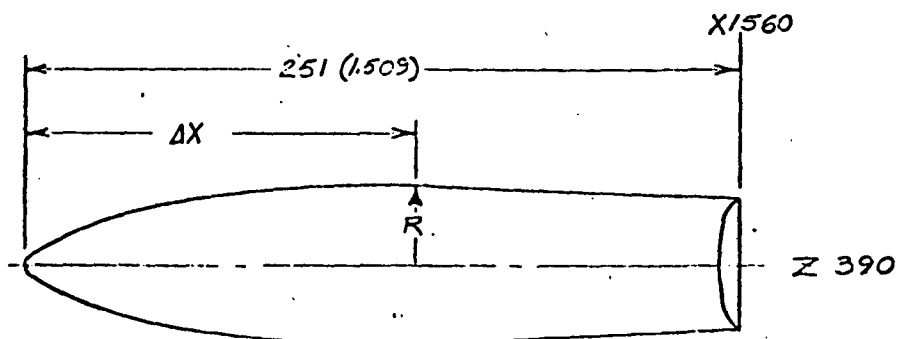
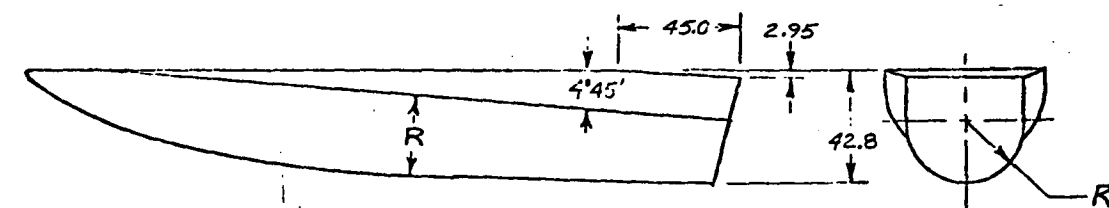
Figure 25. Vertical Fin and Rudder, V₂

MCDONNELL DOUGLAS CORPORATION

ACPS ENGINE POD ~ P1



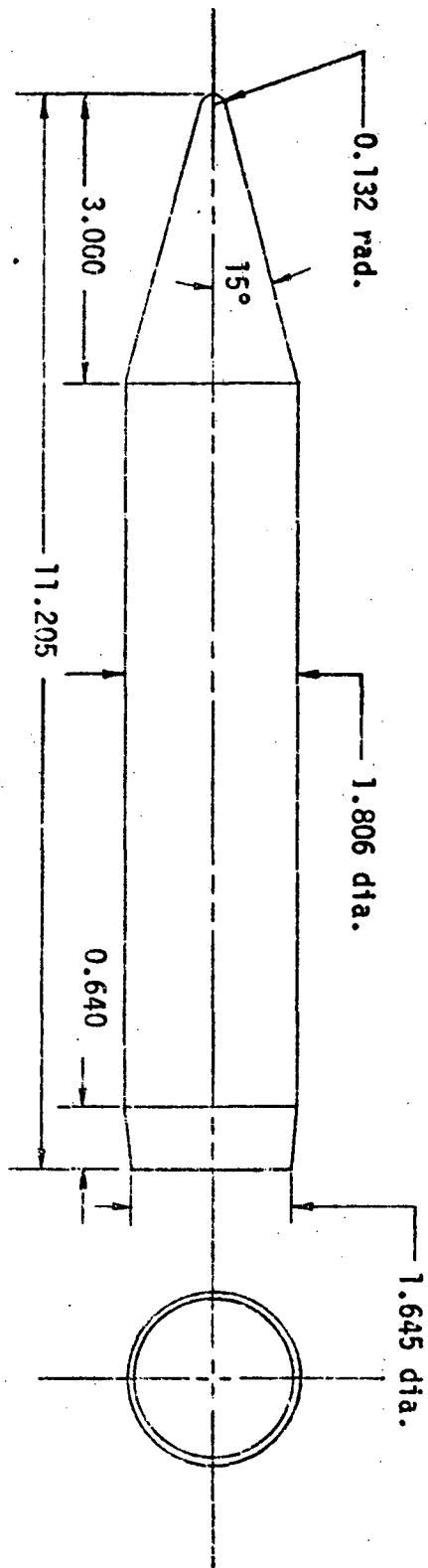
OMS ENGINE POD ~ M1



ΔX	R
0	0
25.0	15.0
58.3	23.7
75.0	28.0
100.0	29.5
132.0	29.2
245.0	24.0

Figure 26. ACPS Engine Pod, P1 and OMS Engine Pod, M1

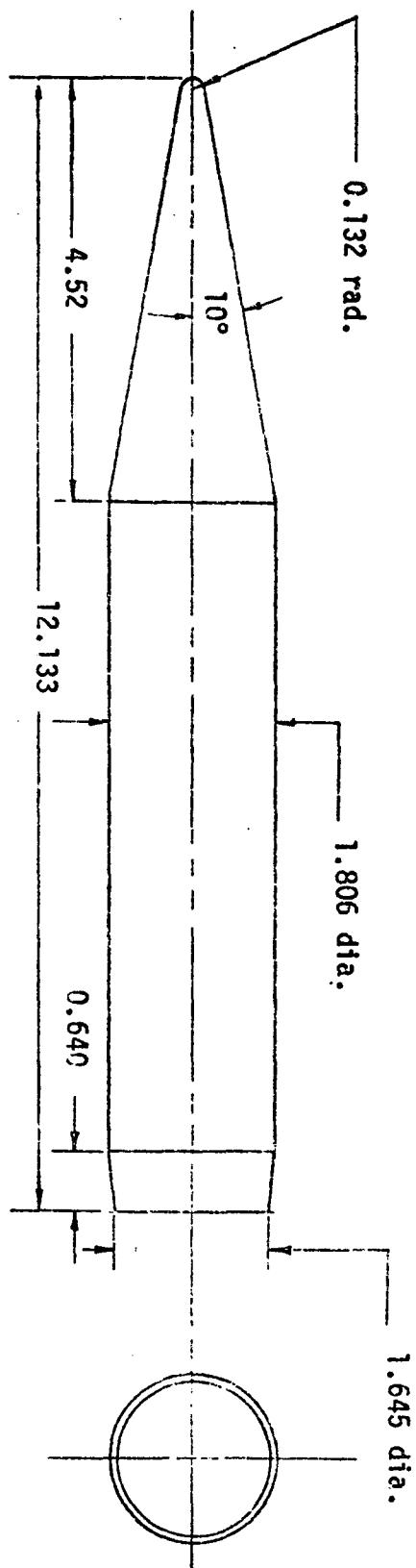
HO TANK, T₁



All dimensions are model scale, in inches.

Figure 27. Centerline HO Tank, T₁

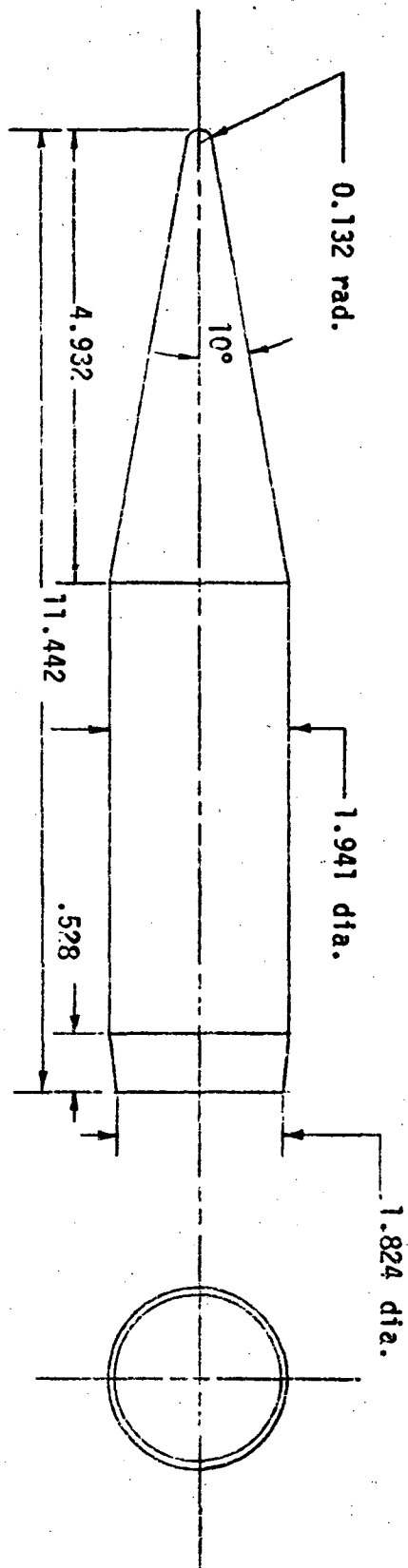
HO TANK, T₂



All dimensions are model scale, in inches.

Figure 28. Centerline HO Tank, T₂

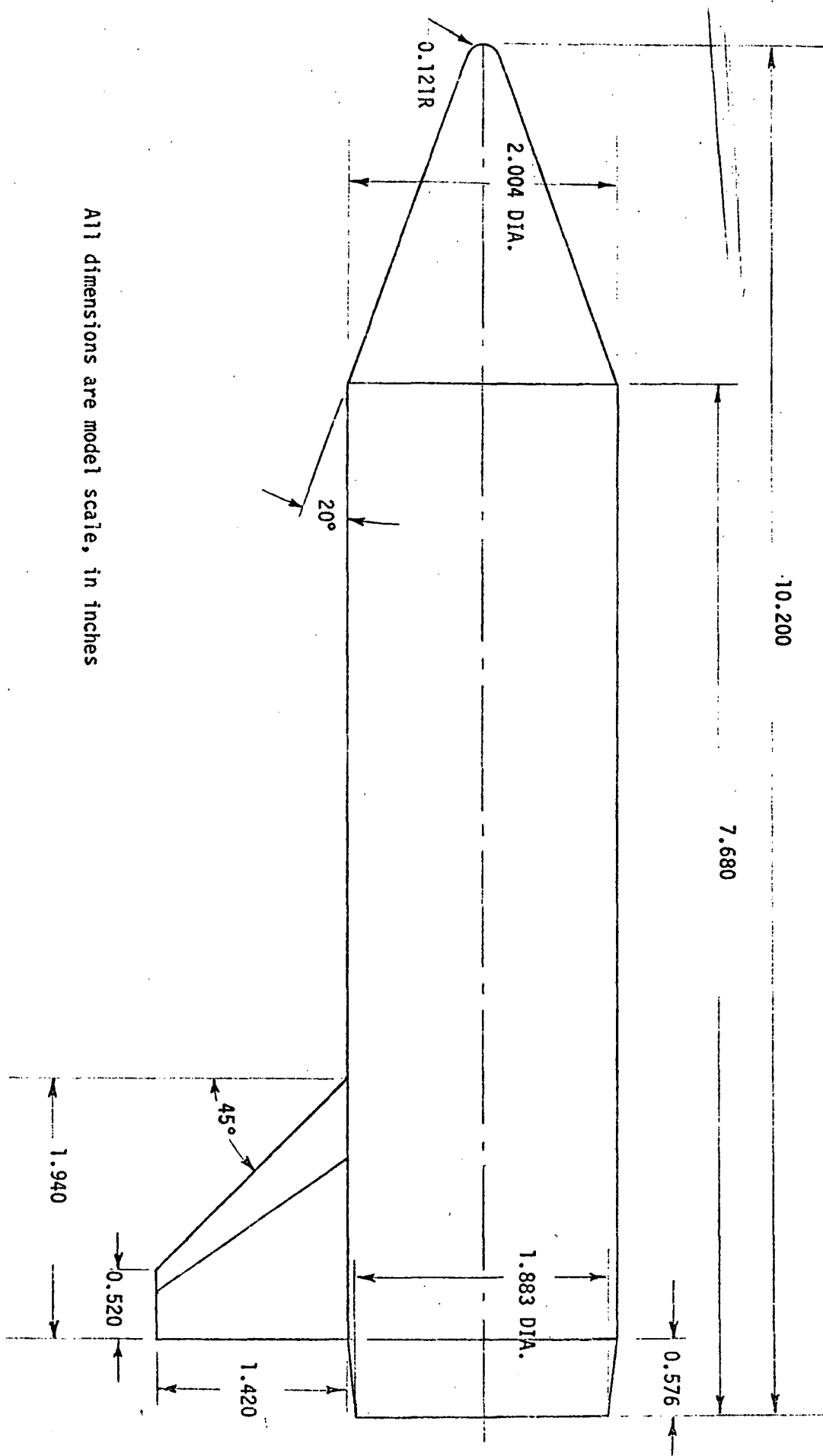
HO TANK, T₃



All dimensions are model scale, in inches.

Figure 29. Centerline HO Tank, T₃

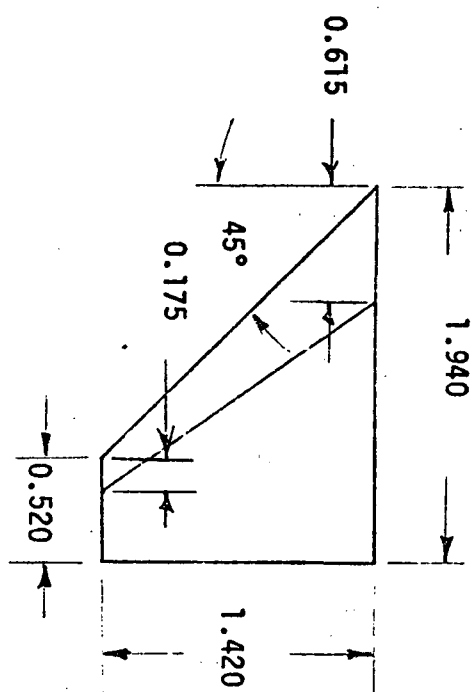
TANK T₄ WITH TANK VENTRAL FIN, F₁



All dimensions are model scale, in inches

Figure 30. Centerline HO Tank T₄ With Tank Ventral Fin, F₁

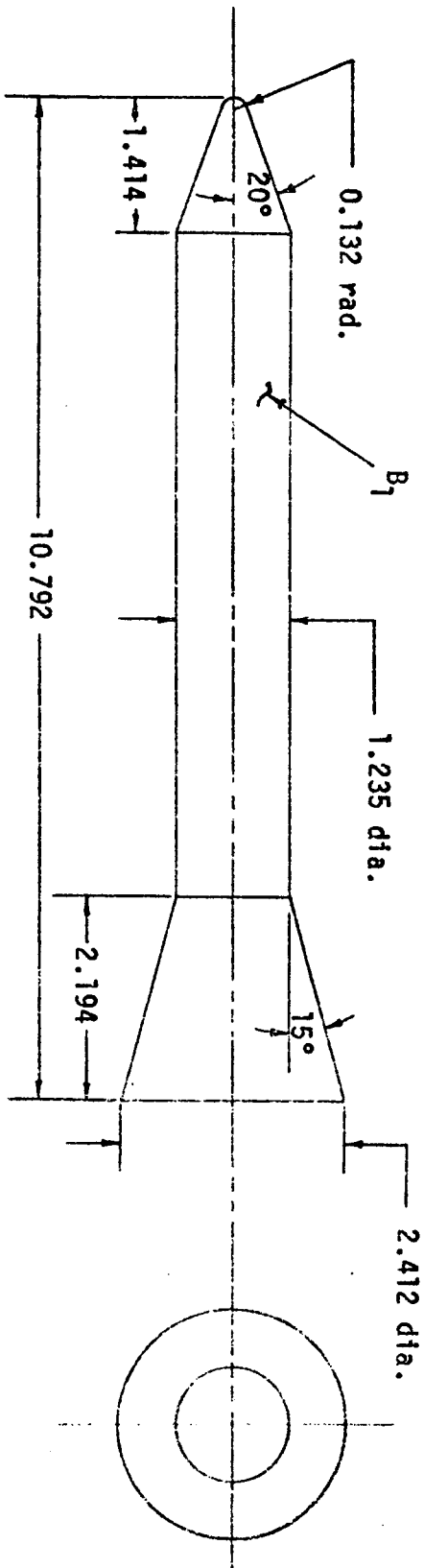
TANK VENTRAL FIN, F_1



All dimensions are model scale, in inches

Figure 31. Centerline Ventral Fin, F_1

BOOSTER, B₁ & B₅



118

All dimensions are model scale, in inches.

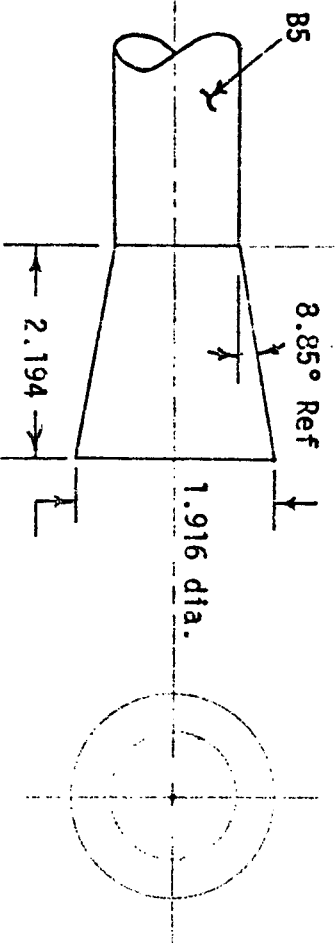


Figure 32. Boosters, B₁ and B₅

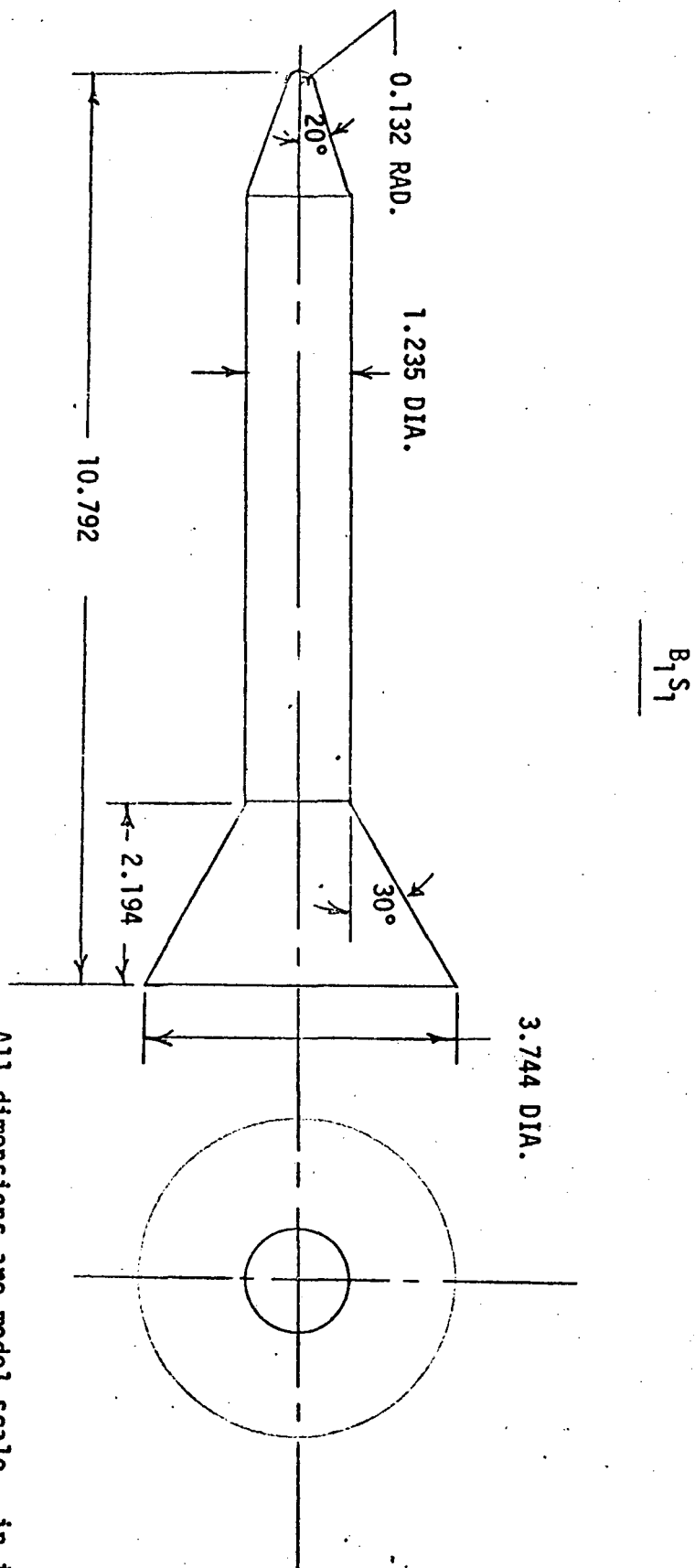


Figure 33. Booster, B₁S₁

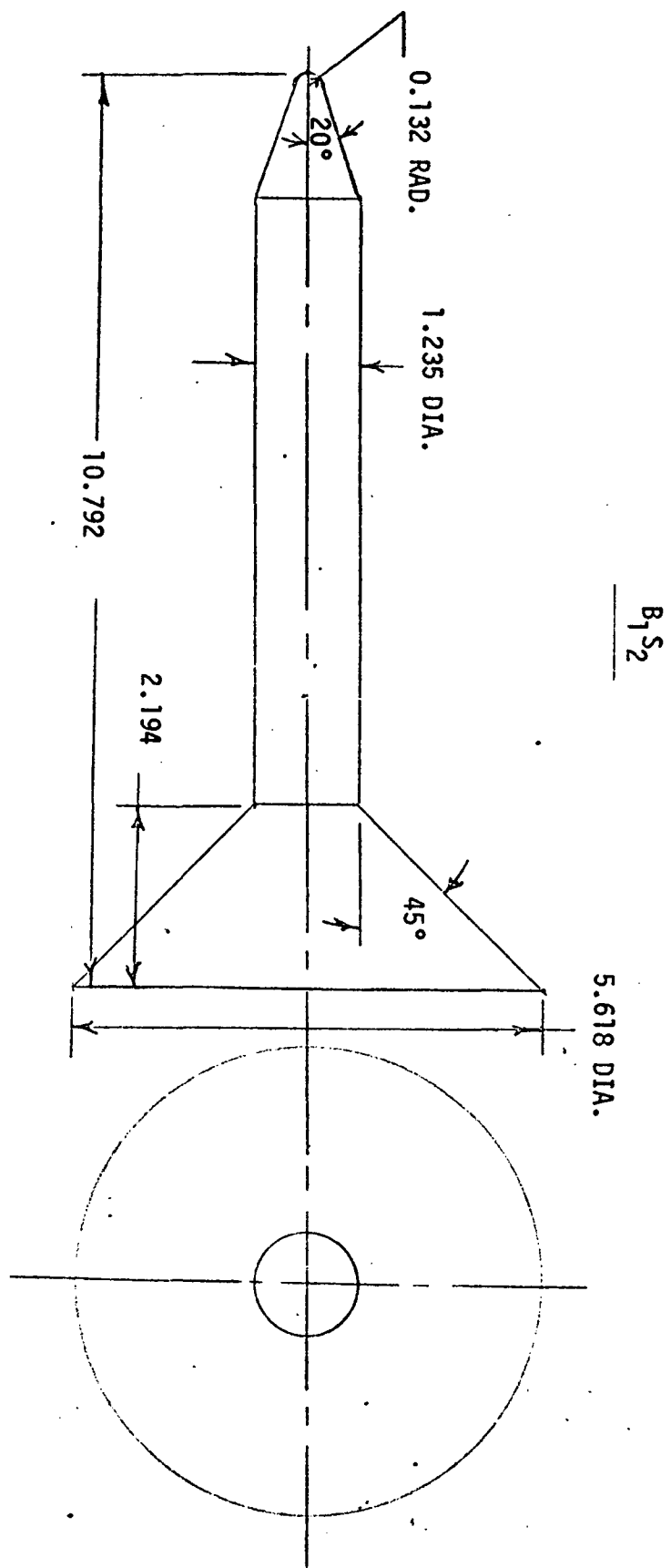
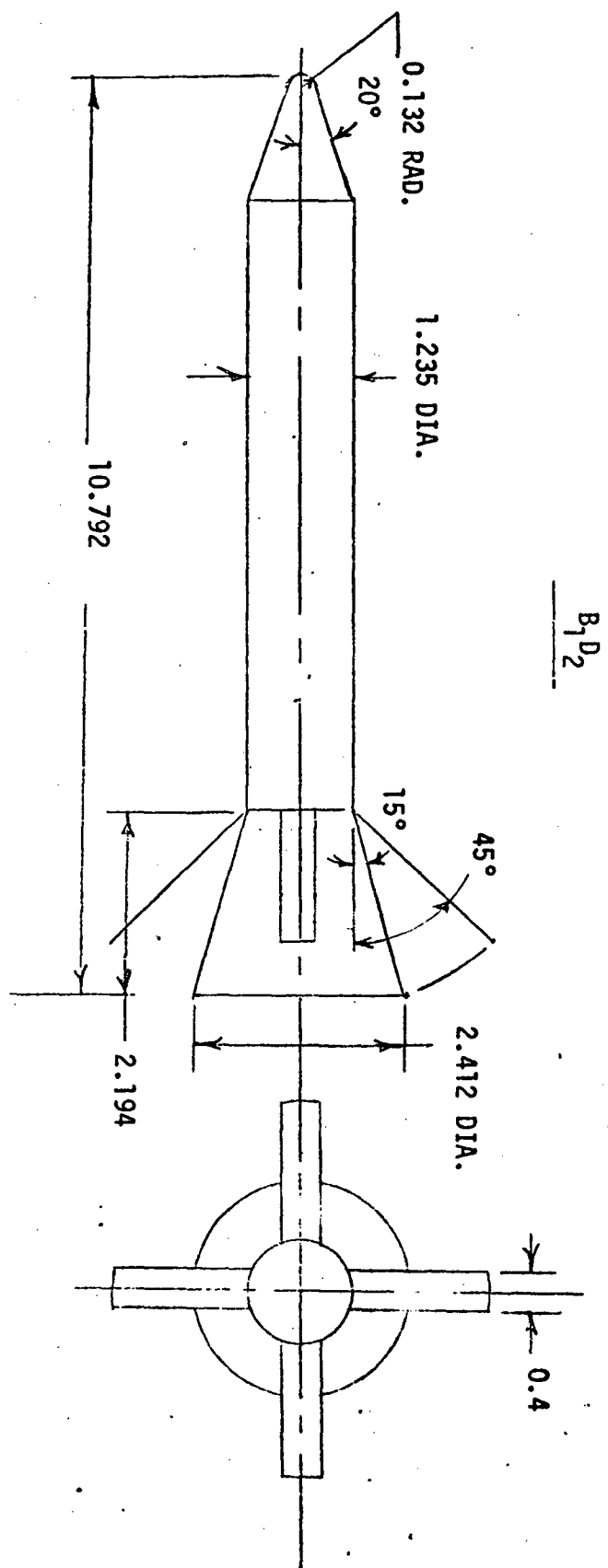


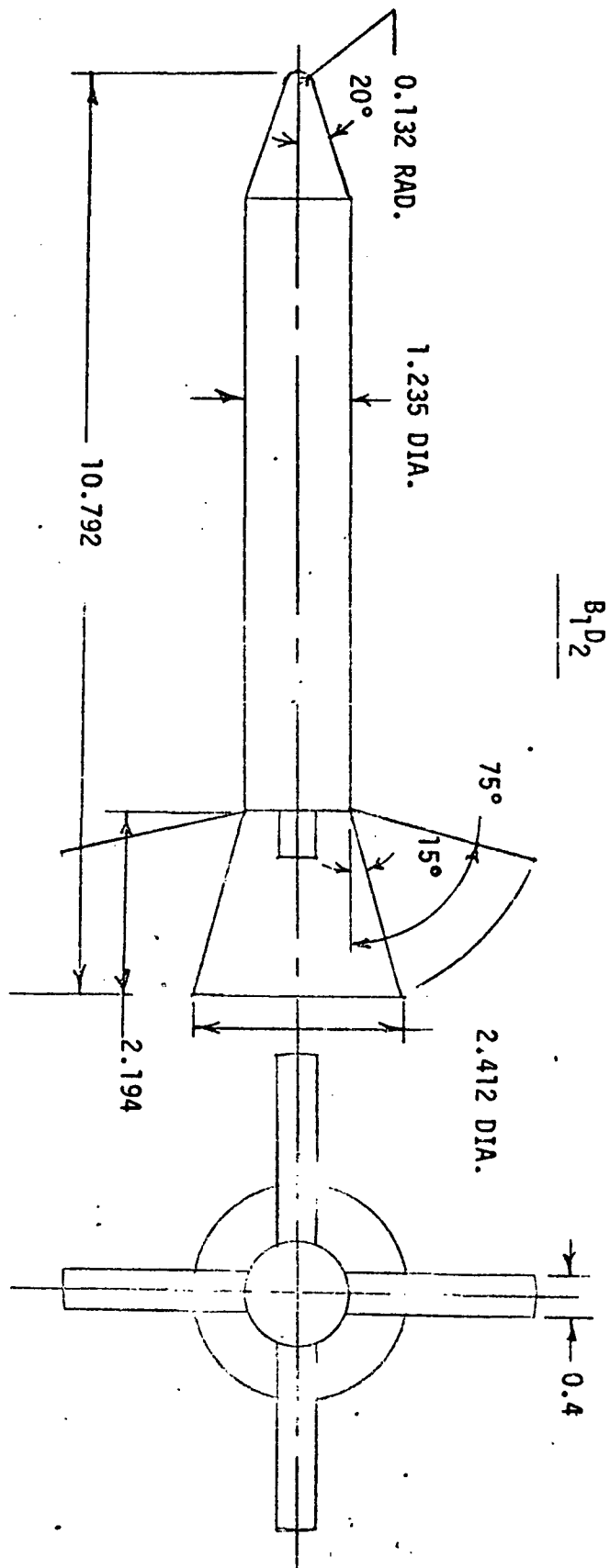
Figure 34. Booster, B_1S_2

All dimensions are model scale, in inches



All dimensions are model scale, in inches

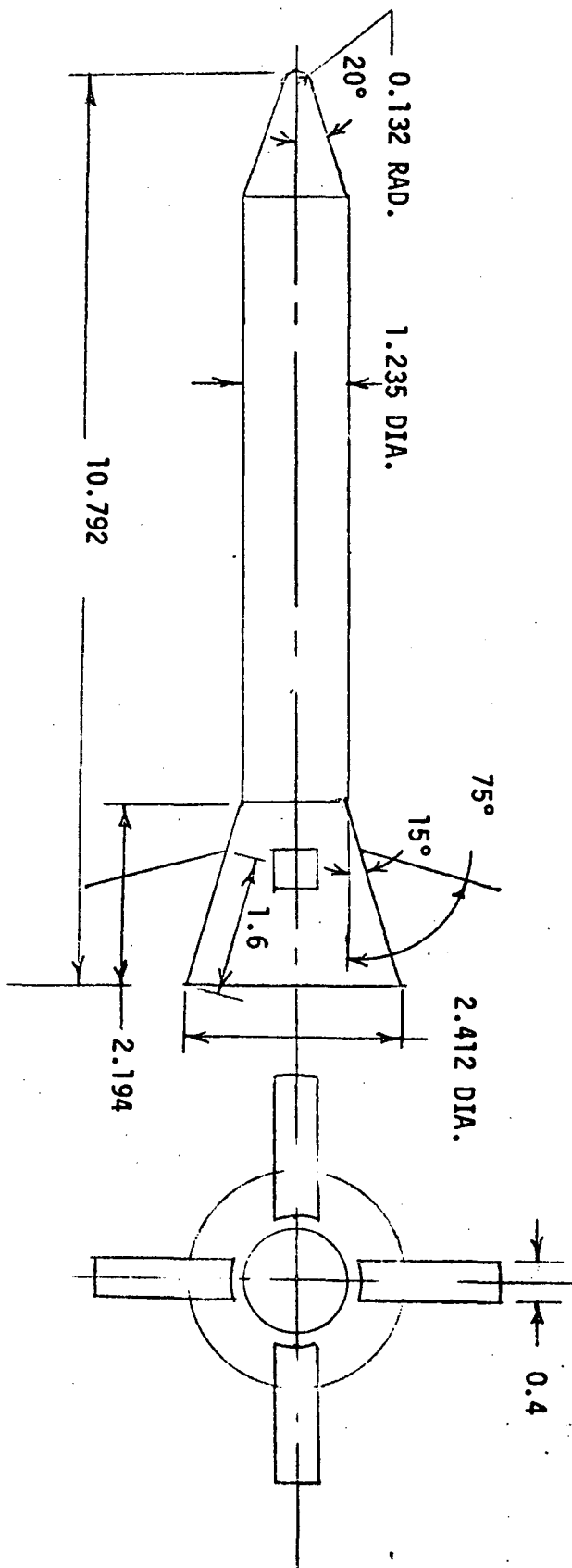
Figure 35. Booster, B_1D_2



All dimensions are model scale, in inches

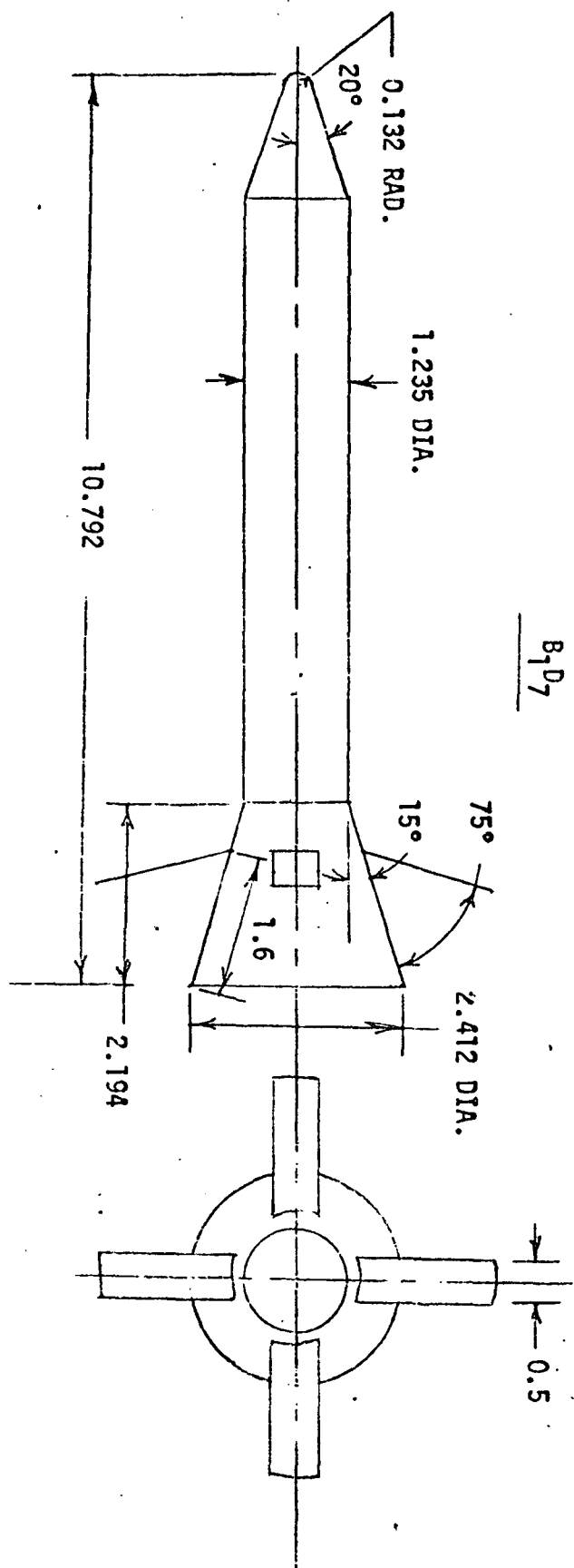
Figure 35. (Continued)

B₁D₆



All dimensions are model scale, in inches

Figure 36. Booster, B₁D₆



All dimensions are model scale, in inches

Figure 37. Booster, B1D7

BOOSTERS, B₂ & B₂S & B₆

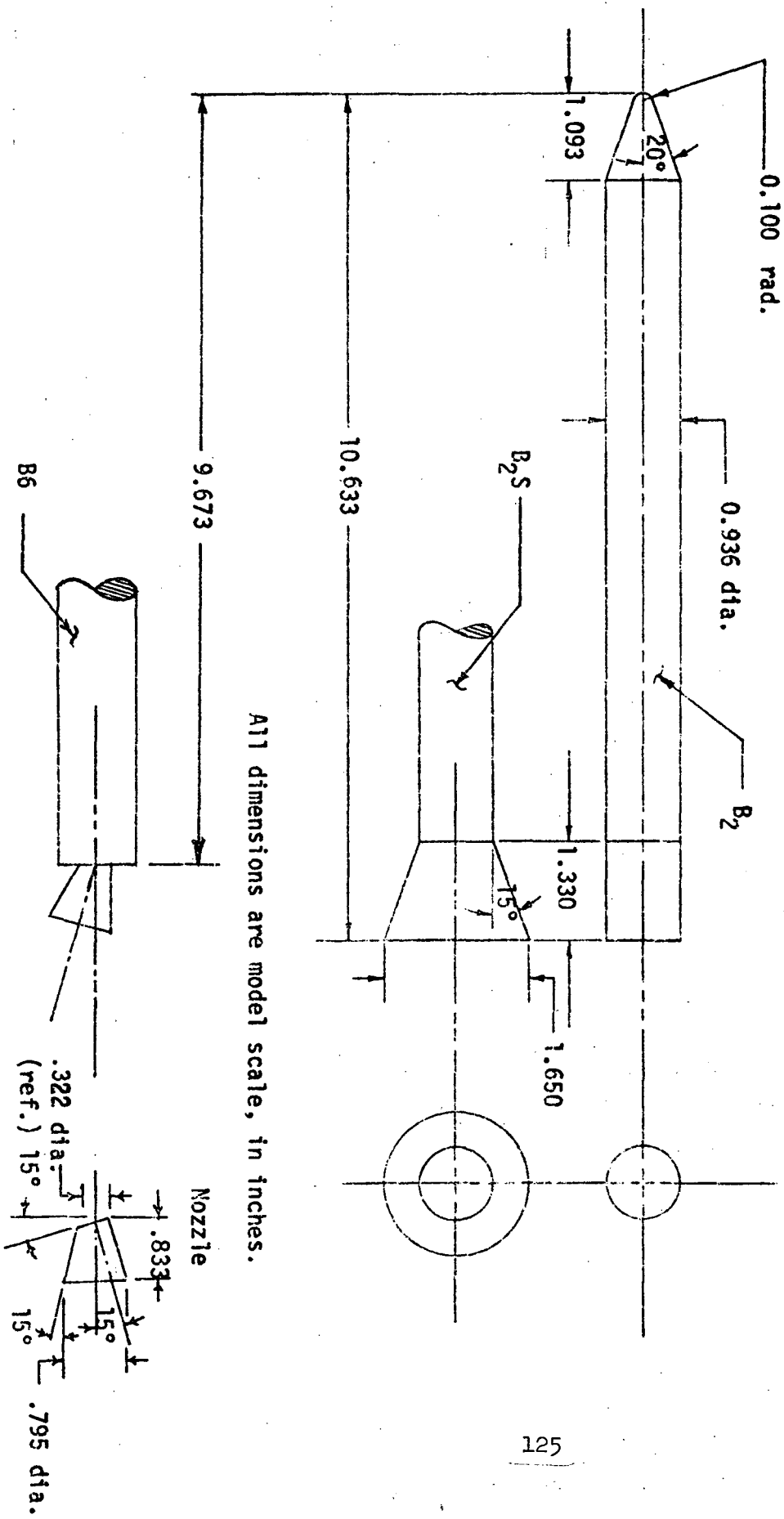
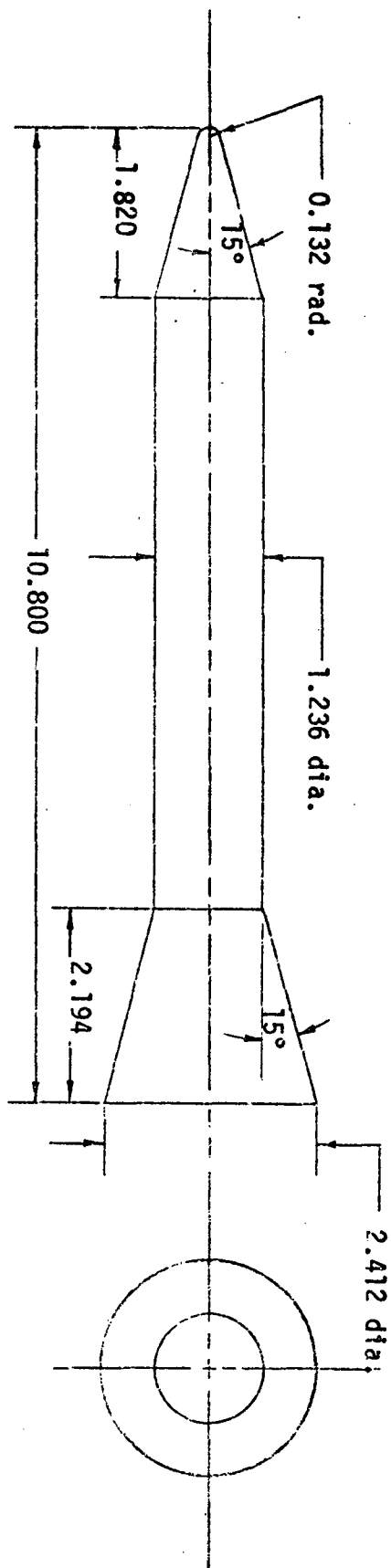


Figure 38. Boosters, B_2 , B_2^S & B_6

BOOSTER, B₃



All dimensions are model scale, in inches.

Figure 39. Booster, B₃

BOOSTER, B₄

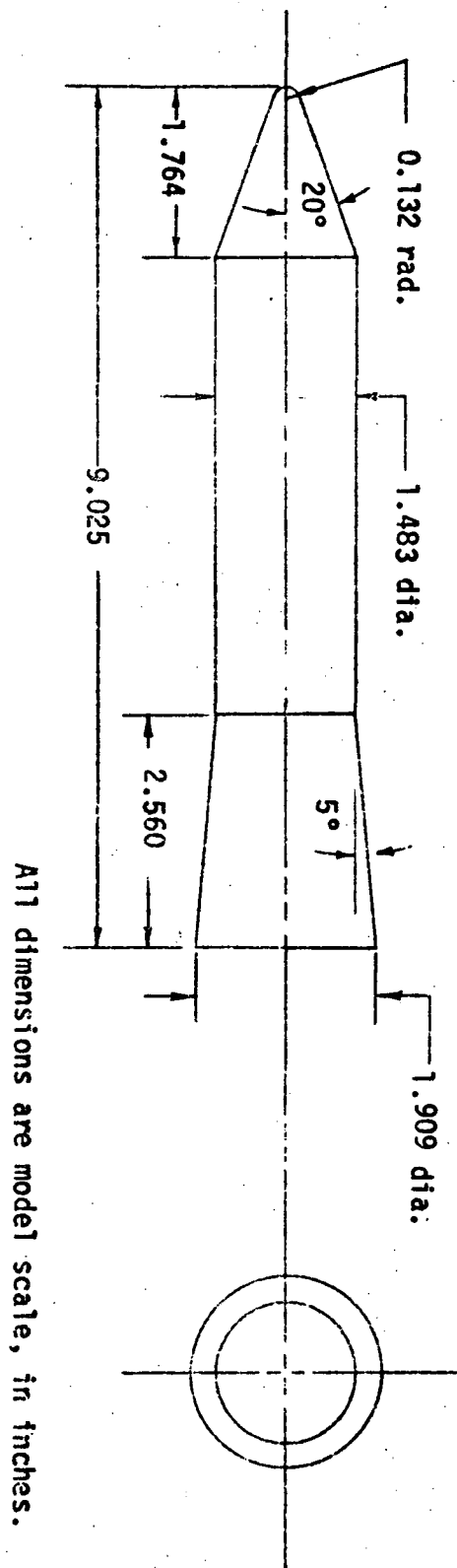


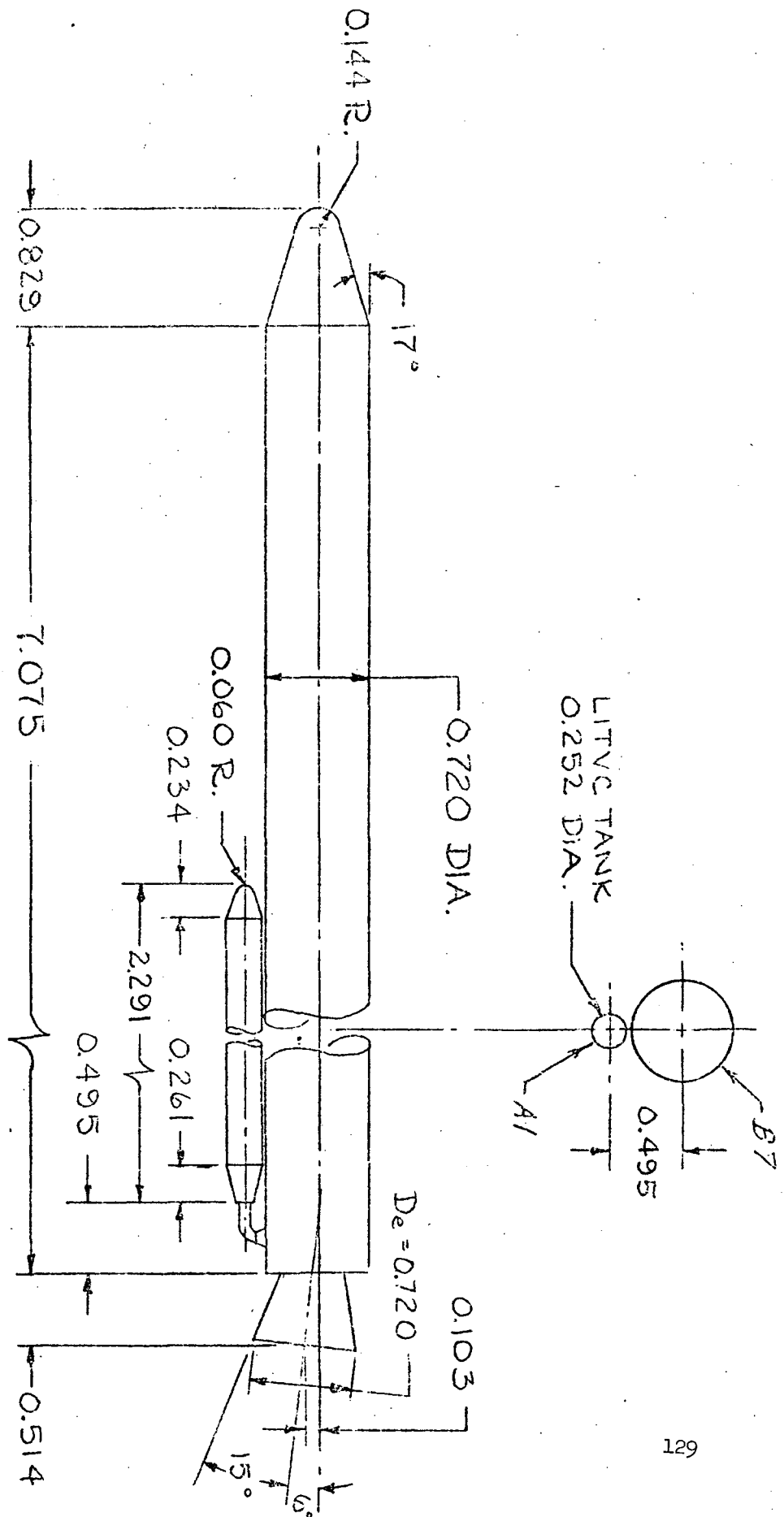
Figure 40. Booster, B₄

FIN, F4



All dimensions are model scale, in inches.

Figure 41. Booster F1n F₄ Mounted on Booster B₄



B7A1

0.6% SCALE MODEL
120 INCH, 7 SEGMENT SRM

Figure 42. Booster, B7A1

REVISION 115-12 HRM 012072

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY

FORM 25-3P
(REV. 5-69)

PREPARED BY: _____
CHECKED BY: _____
DATE: _____
TITLE: _____

DIVISION

PAGE: _____
MODEL: _____
REPORT NO: _____

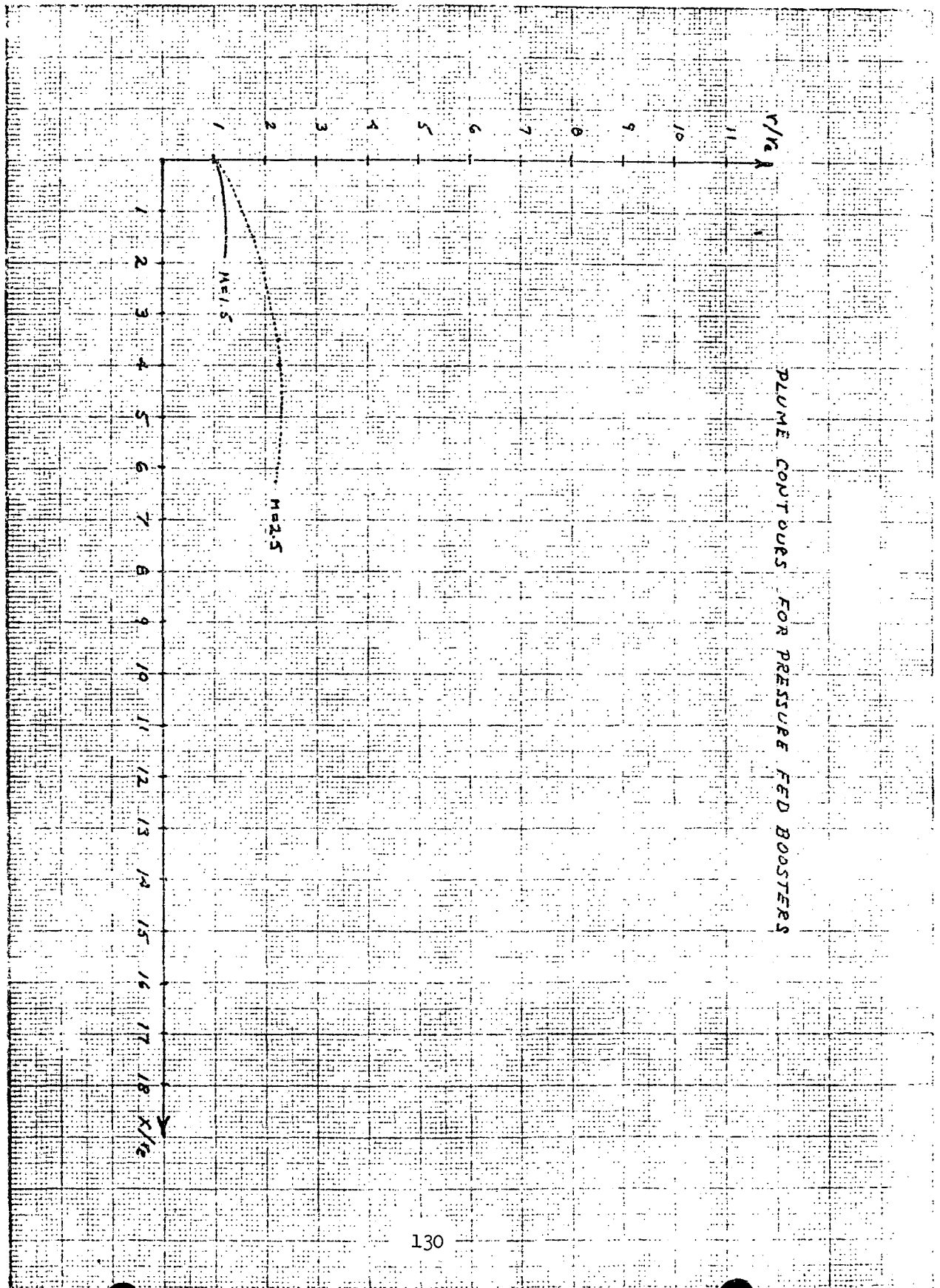


Figure 43. Plume Contours for Pressure Fed Boosters

PREPARED BY: _____

MCDONNELL DOUGLAS ASTRONAUTICS COMPANY

PAGE: _____

CHECKED BY: _____

DIVISION _____

MODEL: _____

DATE: _____

REPORT NO.: _____

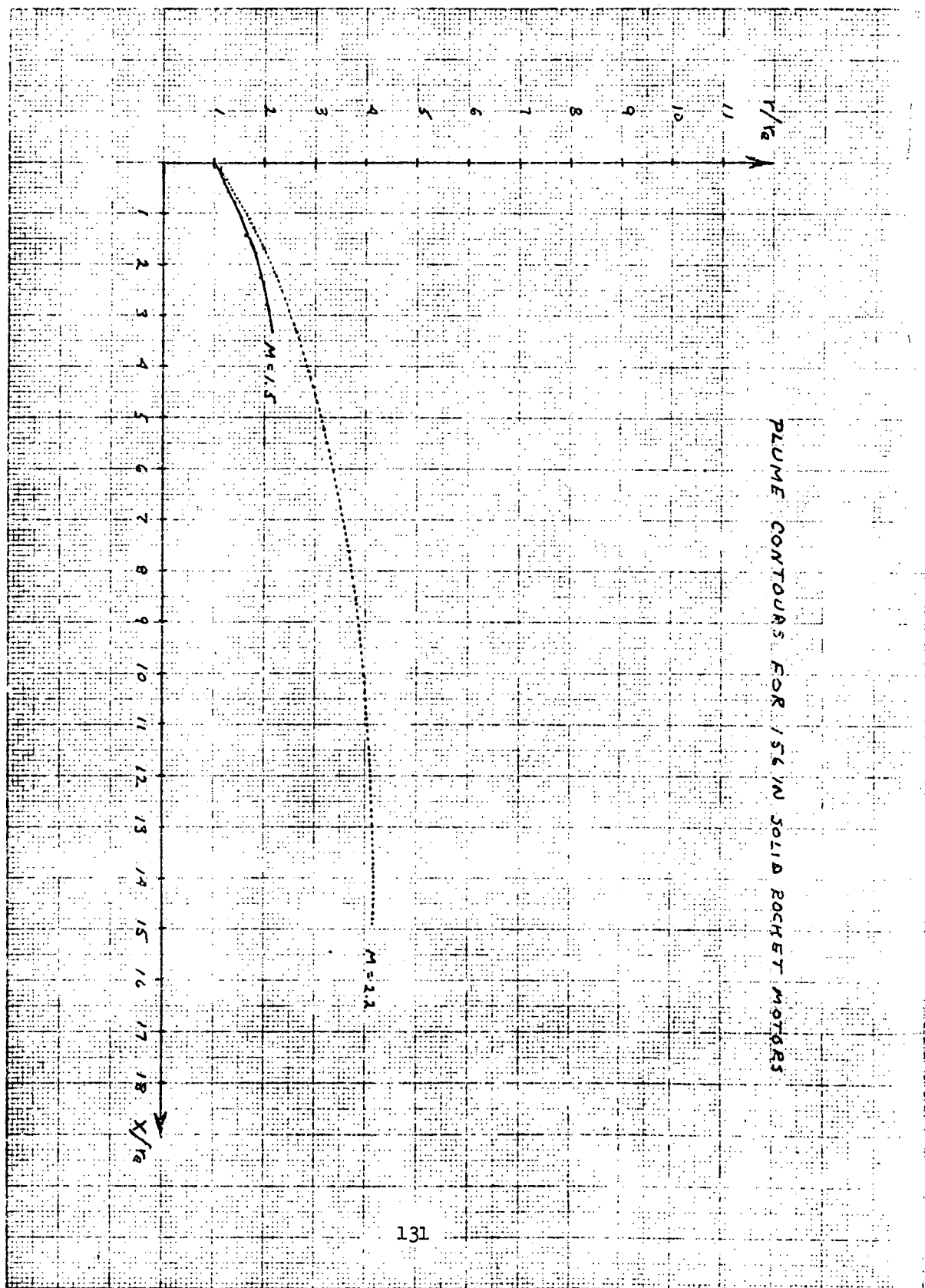


Figure 44. Plume Contours for 156 Inch Solid Rocket Motors

PREPARED BY _____
CHECKED BY _____
DATE: _____
TITLE: _____

PAGE: _____
MODEL: _____
DIVISION: _____
REPORT NO.: _____

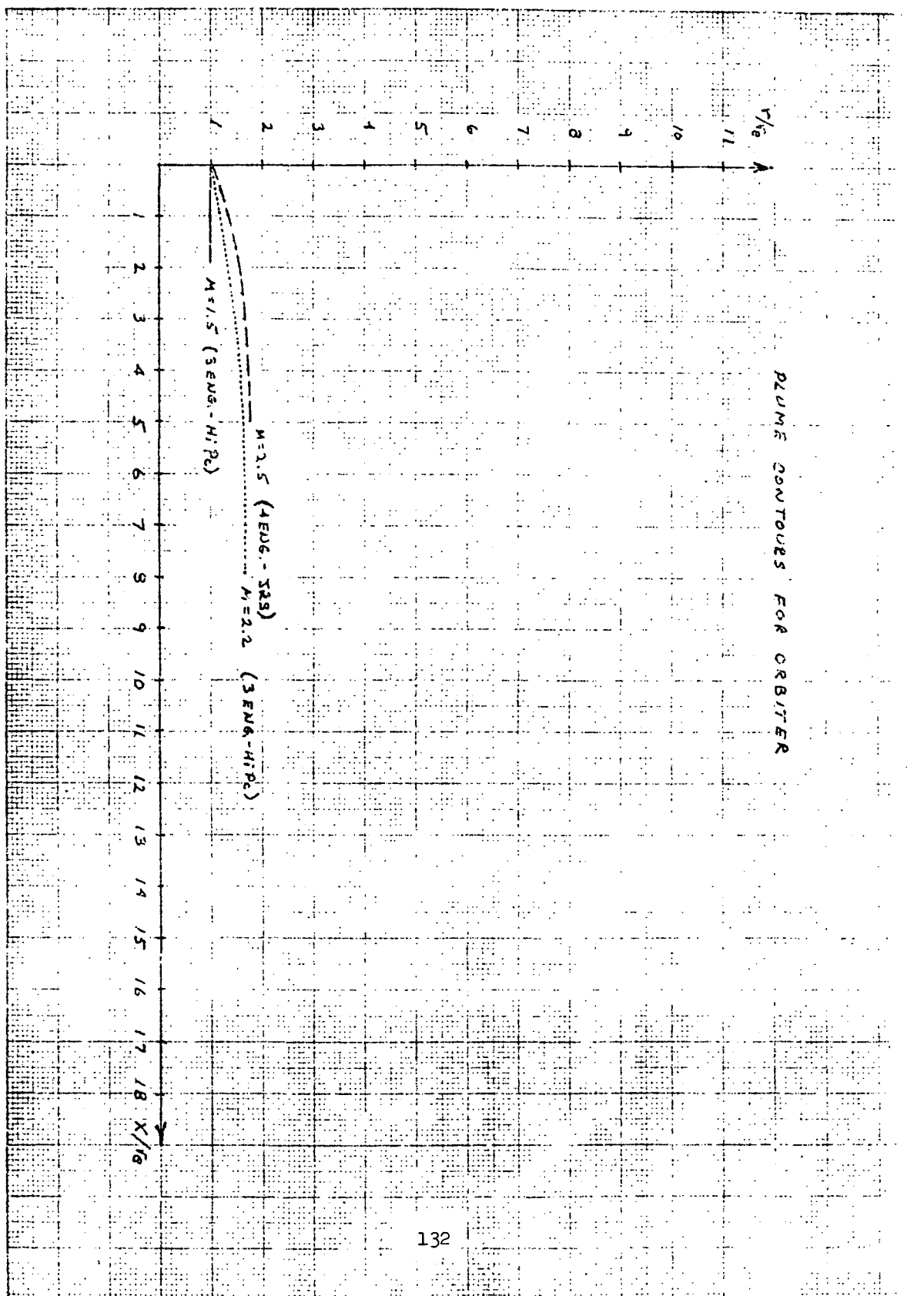
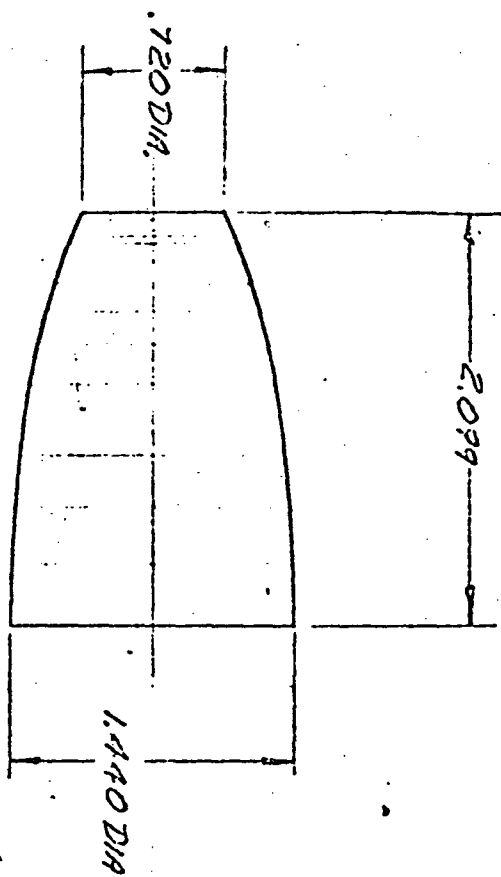


Figure 45. Plume Contour for Orbiter

M1.5 PLUME - B₇ BOOSTER



M2.2 PLUME - B₇ BOOSTER

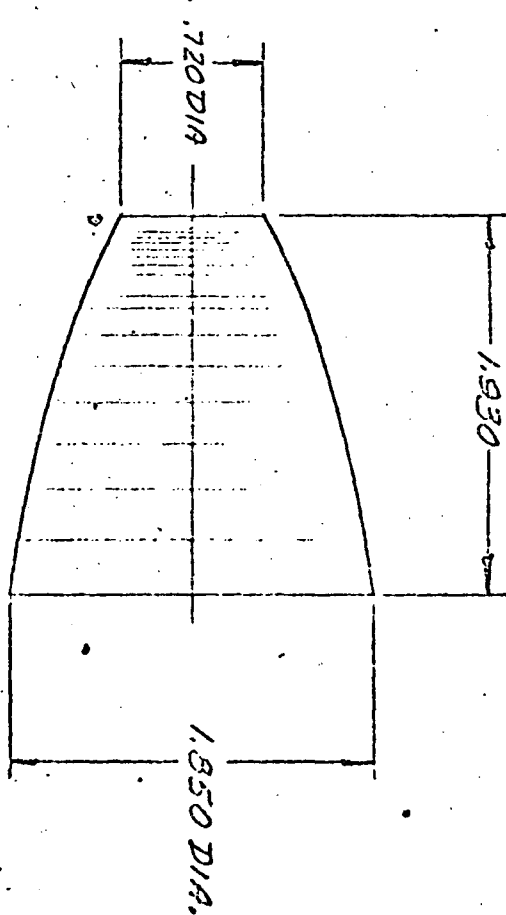
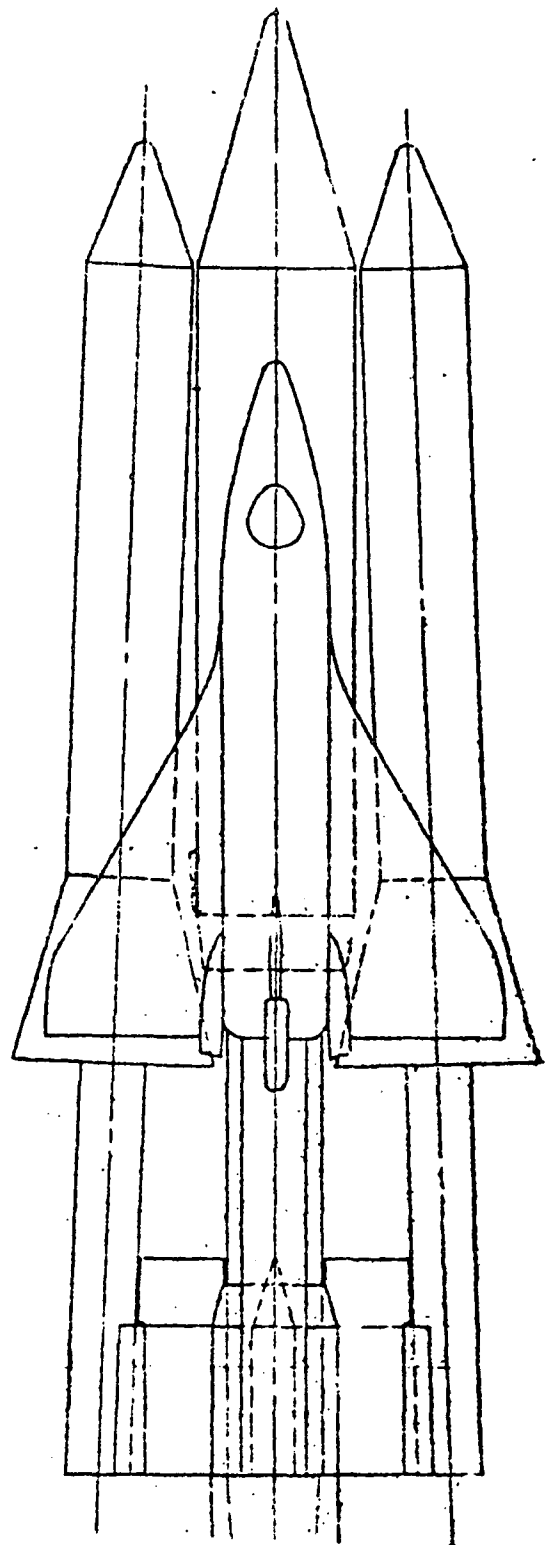


Figure 46. Sketch of Plume for Booster B₇



MODEL SUPPORT SYSTEM DETAIL

Configuration shown
provides independent
support for boosters
tank and orbiter.

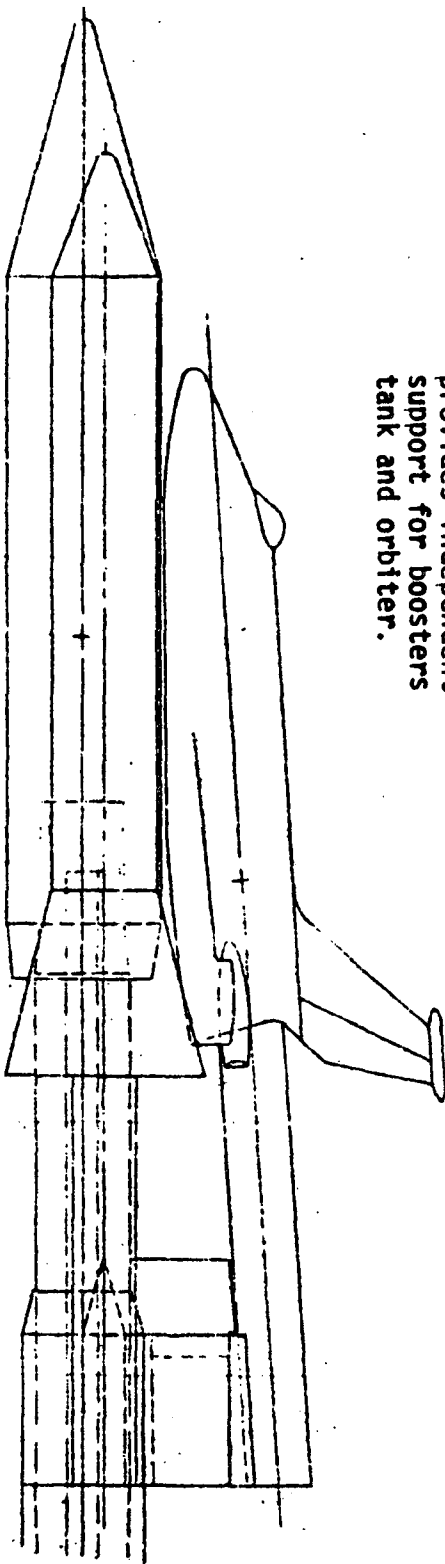
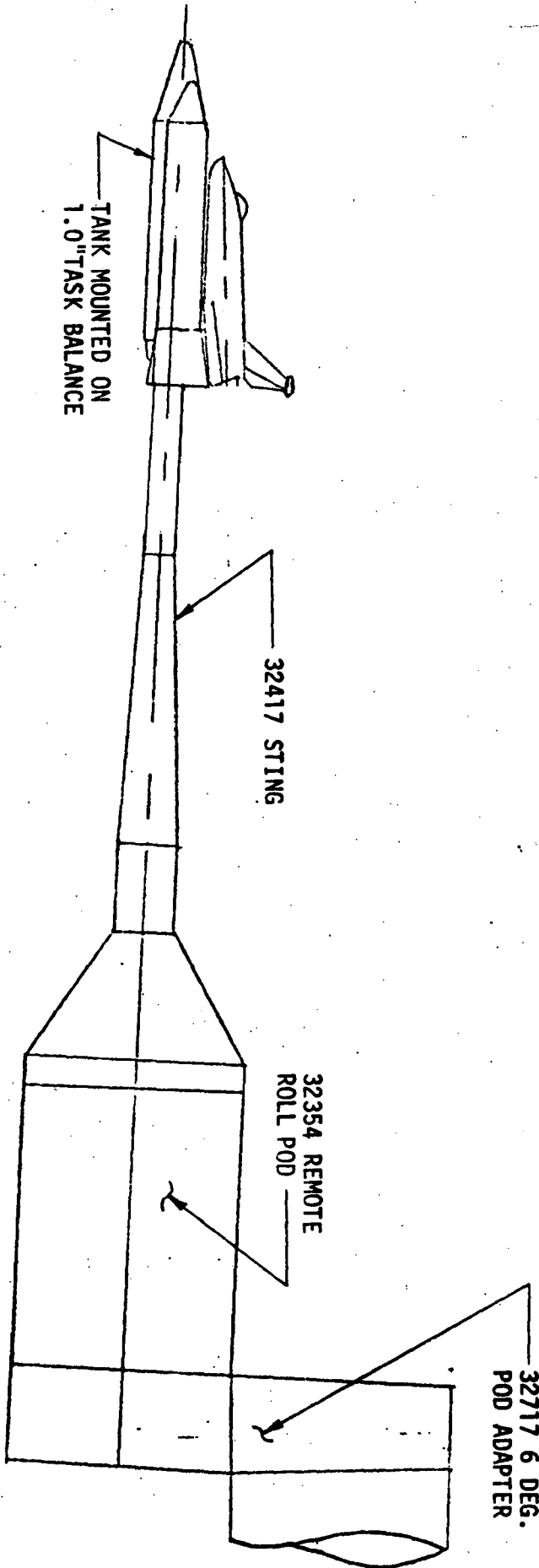
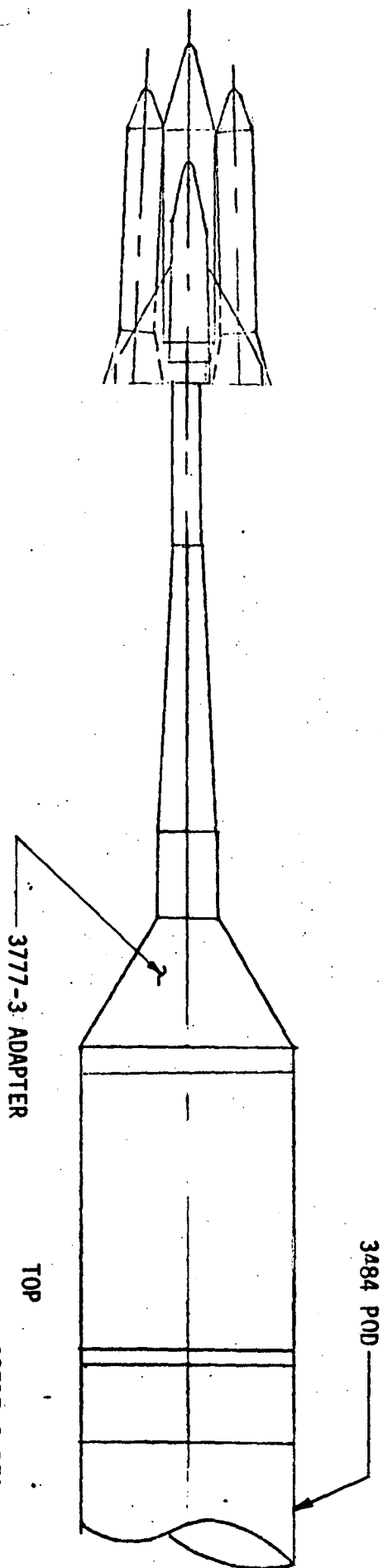


Figure 47. Tunnel Installation for the OBT Configuration-Pitch Series
(Orbiter, Tank and Booster Independently Supported)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION PITCH SERIES

Boosters and Orbiter fixed to centerline tank.



TANK MOUNTED ON
1.0" TASK BALANCE

32417 STING

32354 REMOTE
ROLL POD

32717 6 DEG.
POD ADAPTER

SIDE

TOP

3484 POD

Figure 48. Tunnel Installation for the OBT Configuration-Pitch Series
(Booster and Orbiter Fixed to Centerline Tank)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION PITCH SERIES

Boosters fixed to centerline tank.

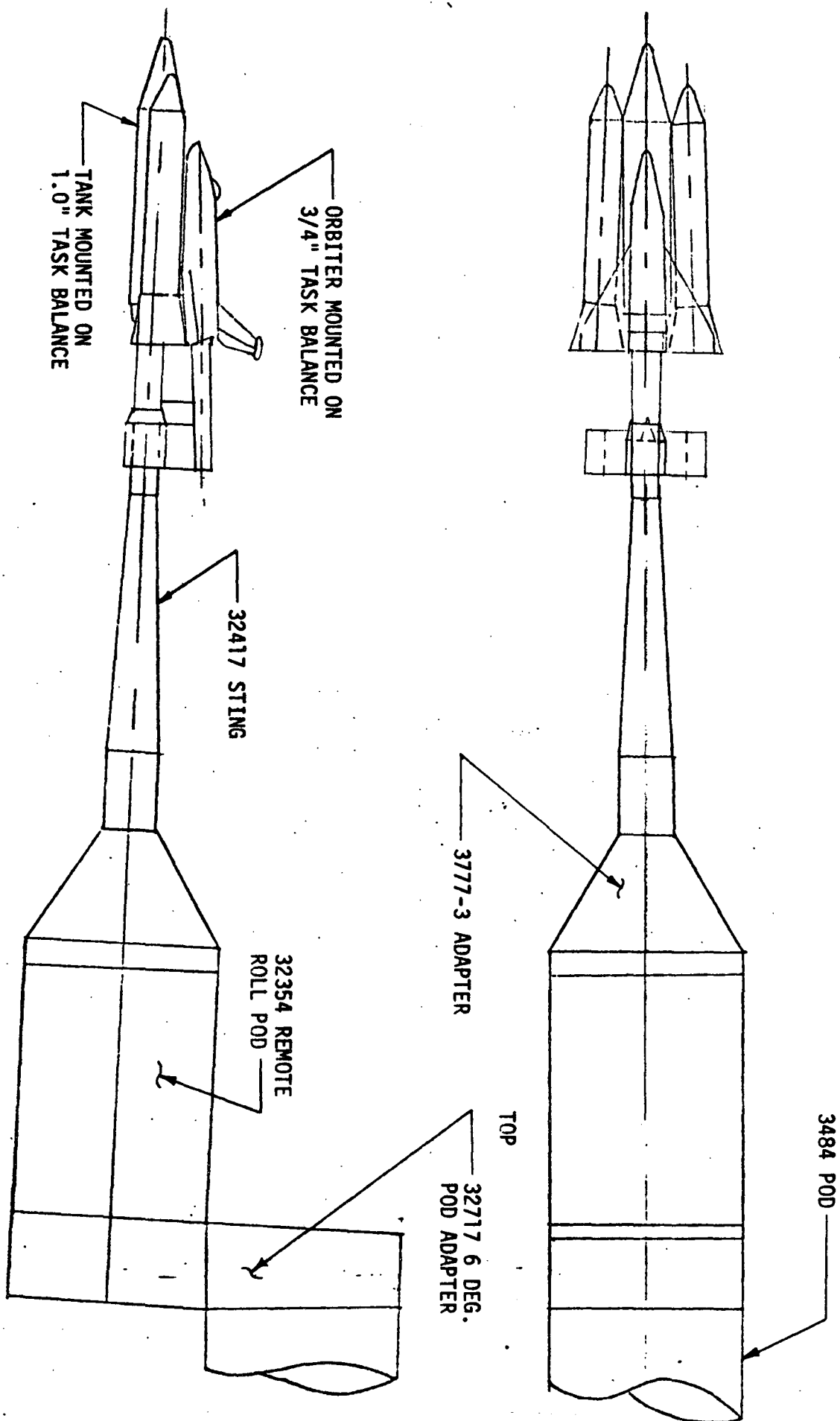
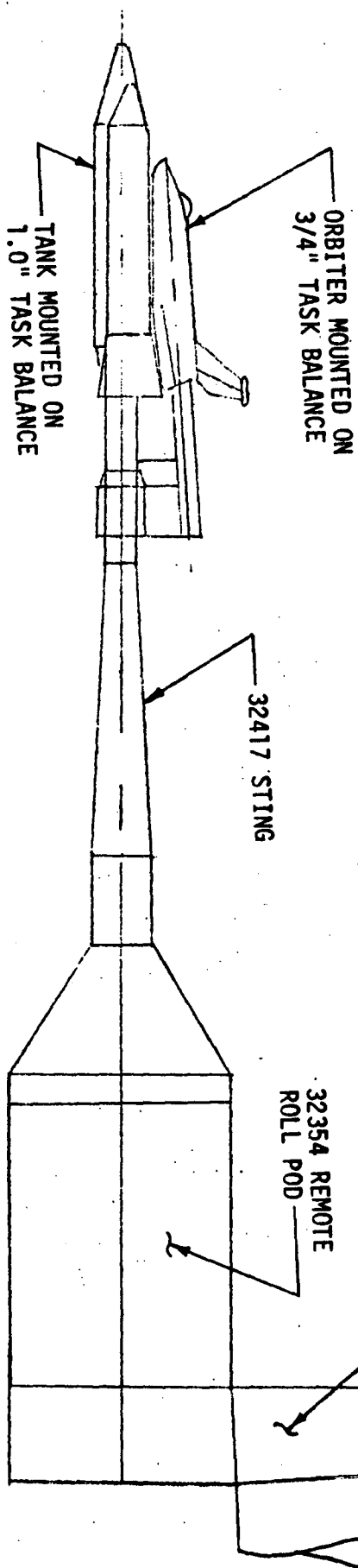
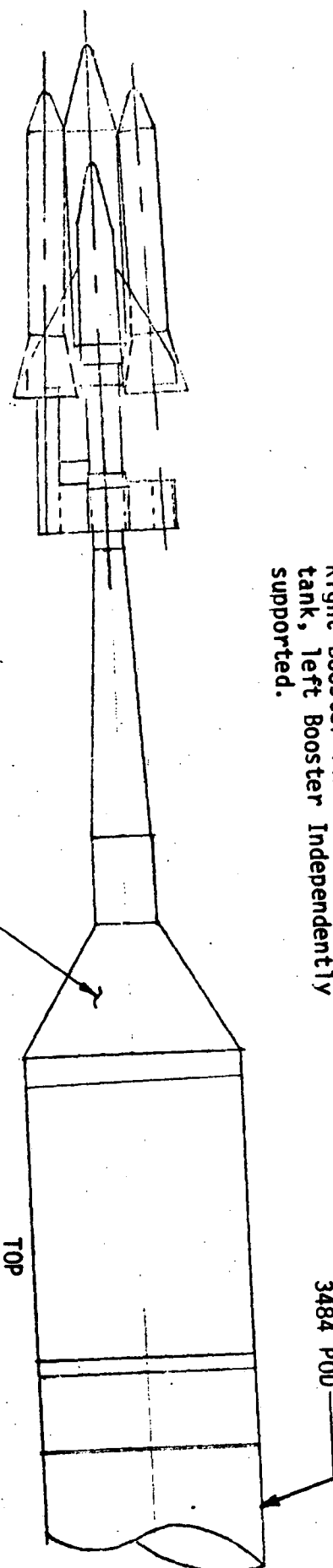


Figure 49. Tunnel Installation for the OBT Configuration-Pitch Series
(Booster Fixed to Centerline Tank)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION PITCH SERIES

Right Booster fixed to centerline tank, left Booster Independently supported.



SIDE

Figure 50. Tunnel Installation for the OBT Configuration-Pitch Series
(Right Booster Fixed to Centerline Tank, Left Booster Independently Supported)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION PITCH SERIES

Left and Right boosters independently supported with centerline tank, T1 in forward position.

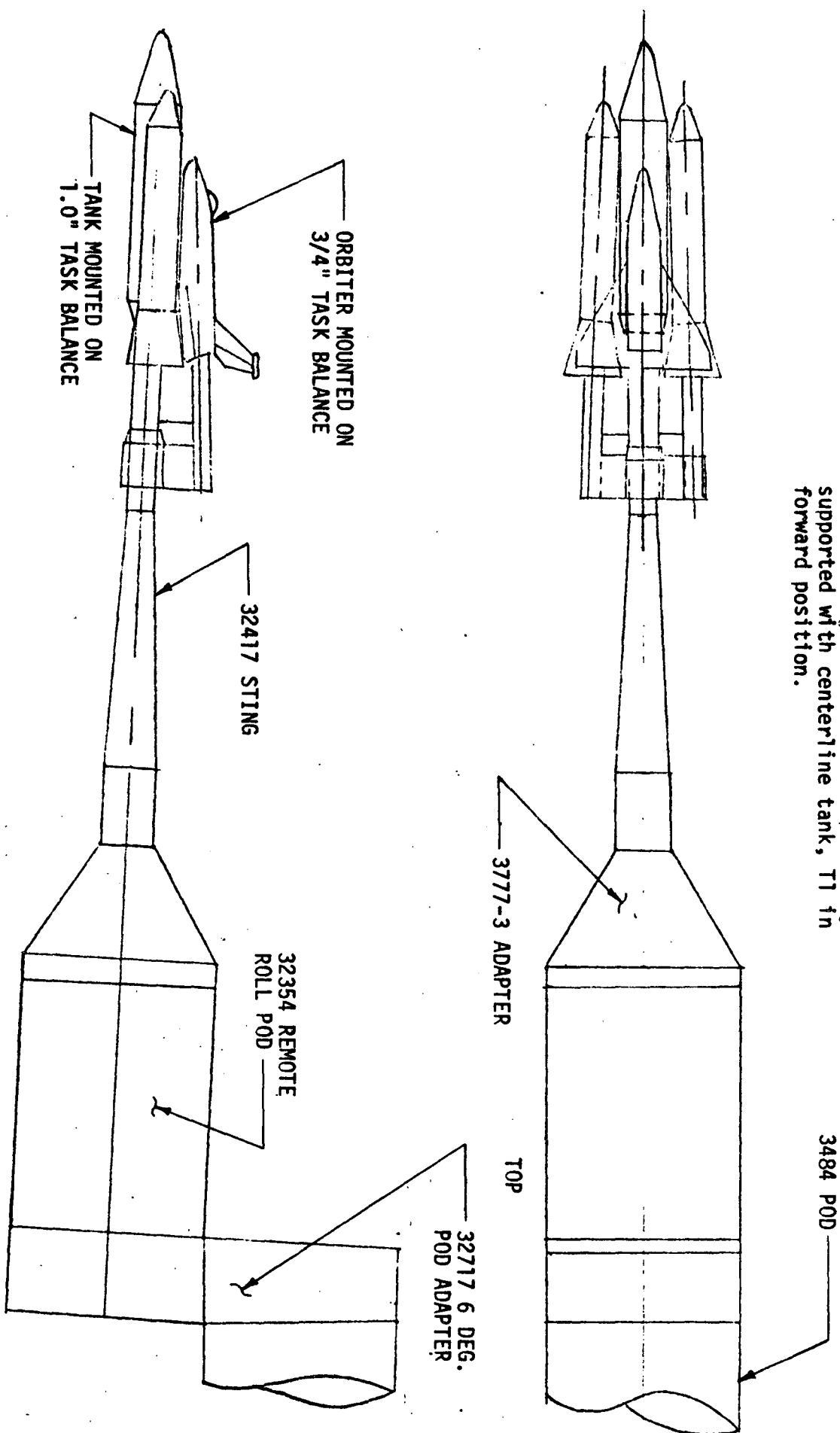


Figure 51. Tunnel Installation for the OBT Configuration-Pitch Series
(Left and Right Booster Independently Supported)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION PITCH SERIES

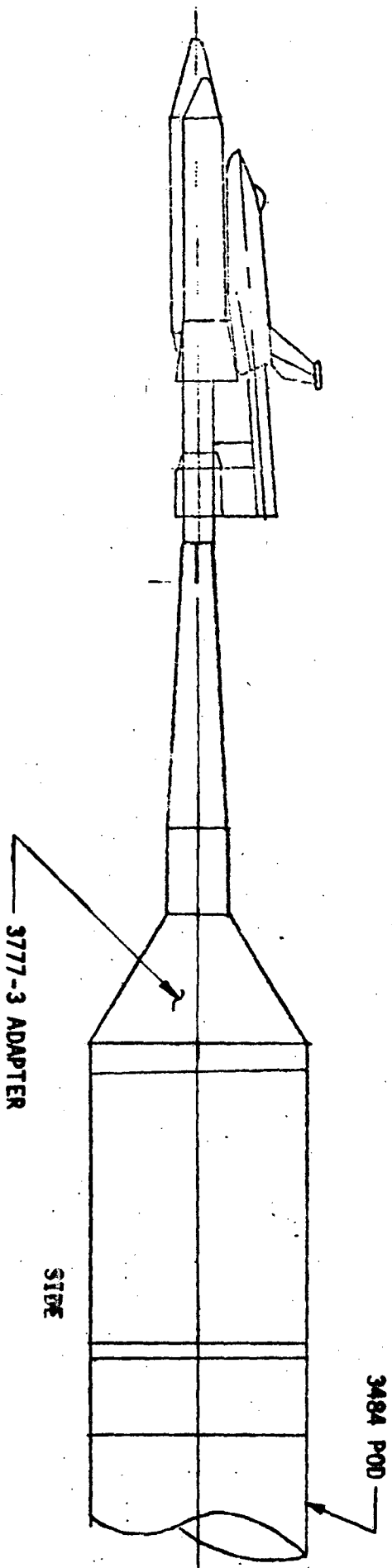
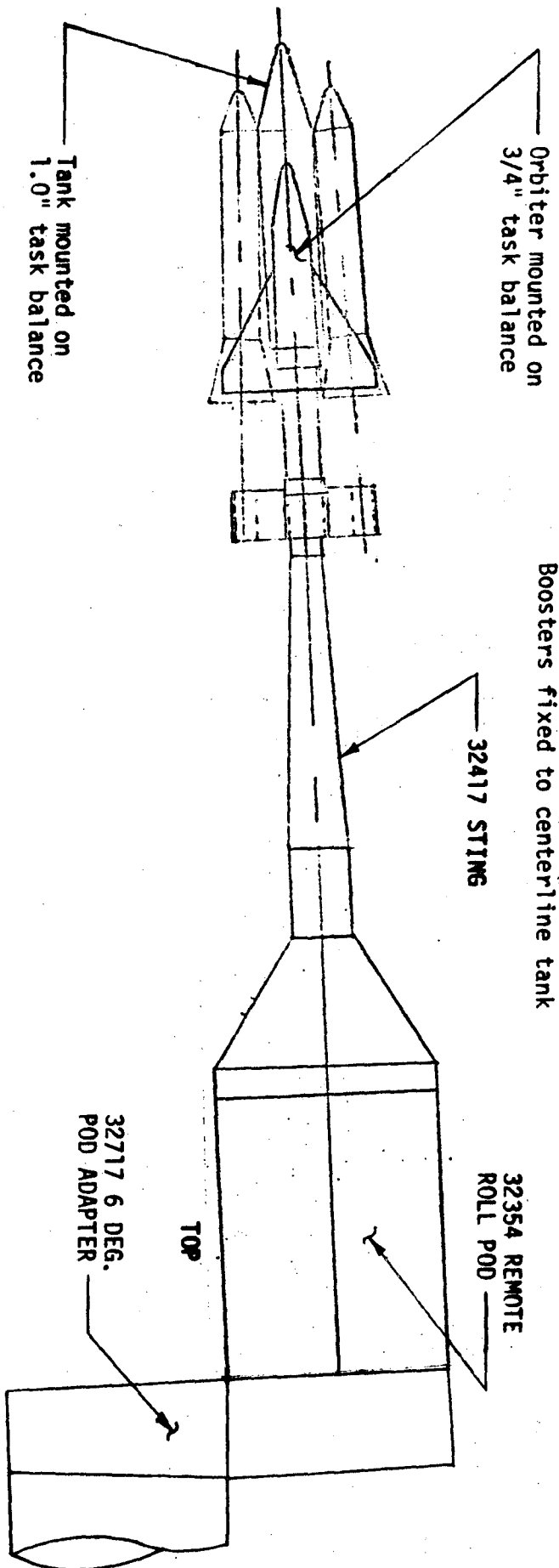


Figure 52. Tunnel Installation for the OBT Configuration with 6° Sideslip Angle-Pitch Series (Boosters Fixed to Centerline Tank)

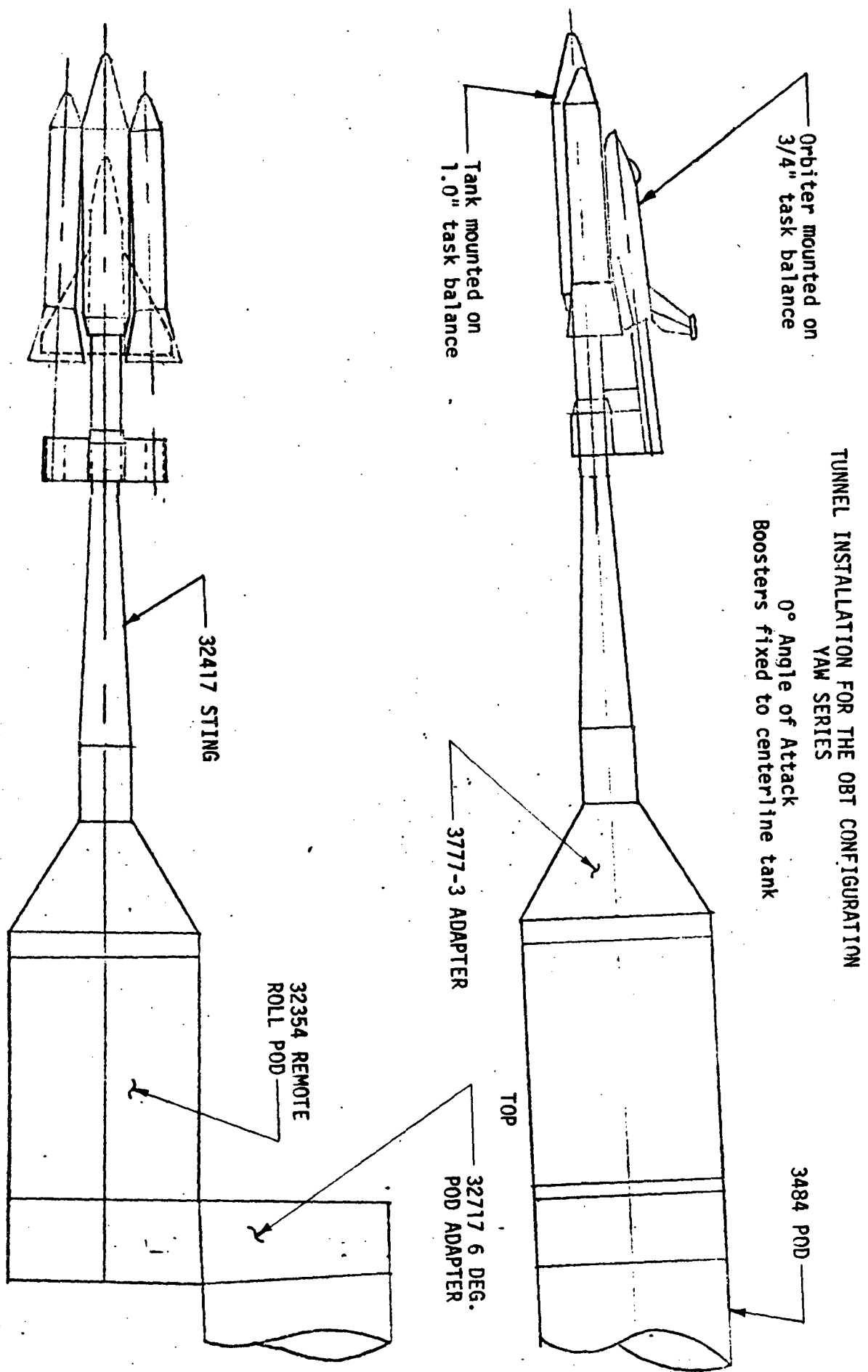


Figure 53. Tunnel Installation for the OBT Configuration With 0° Angle of Attack-Yaw Series (Boosters Fixed to Centerline Tank)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION YAW SERIES

6° Angle of Attack
Boosters fixed to centerline tank

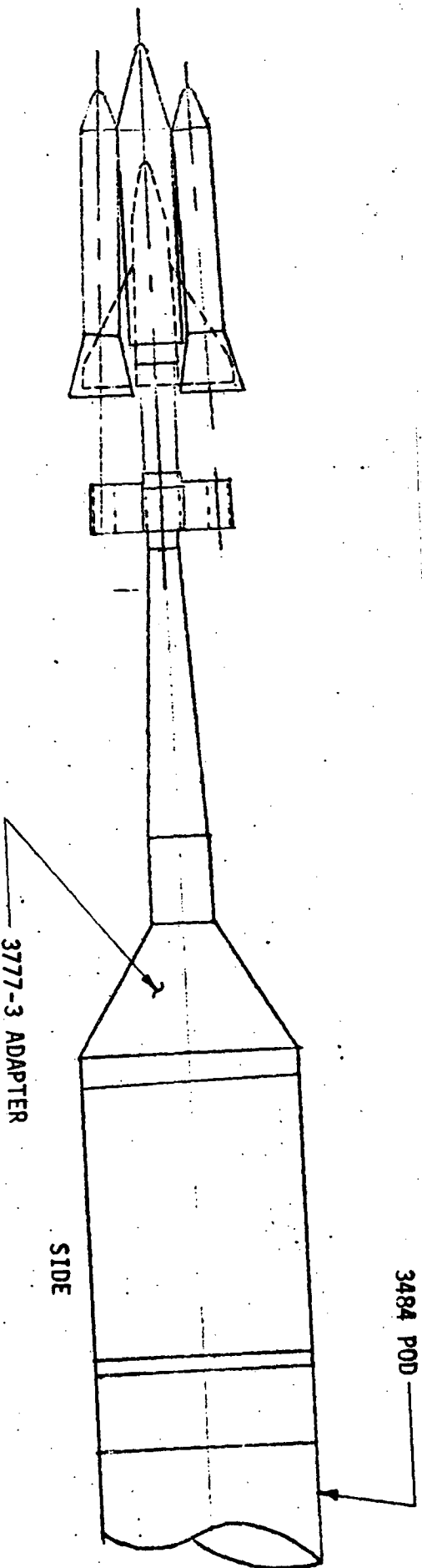
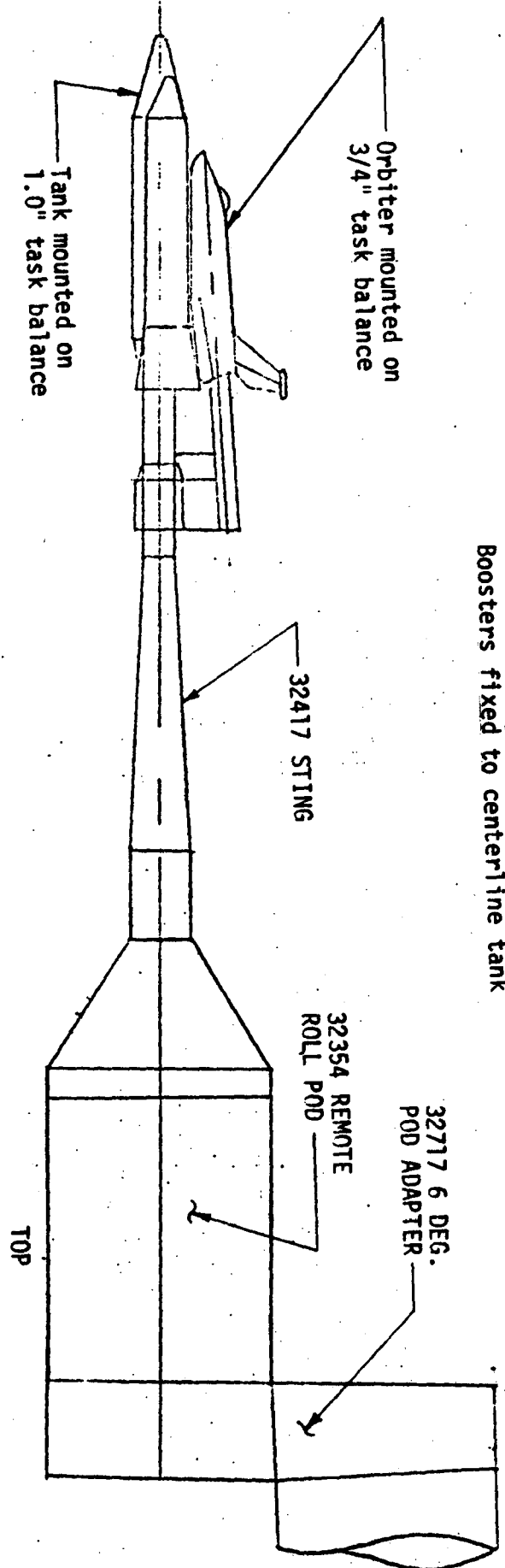
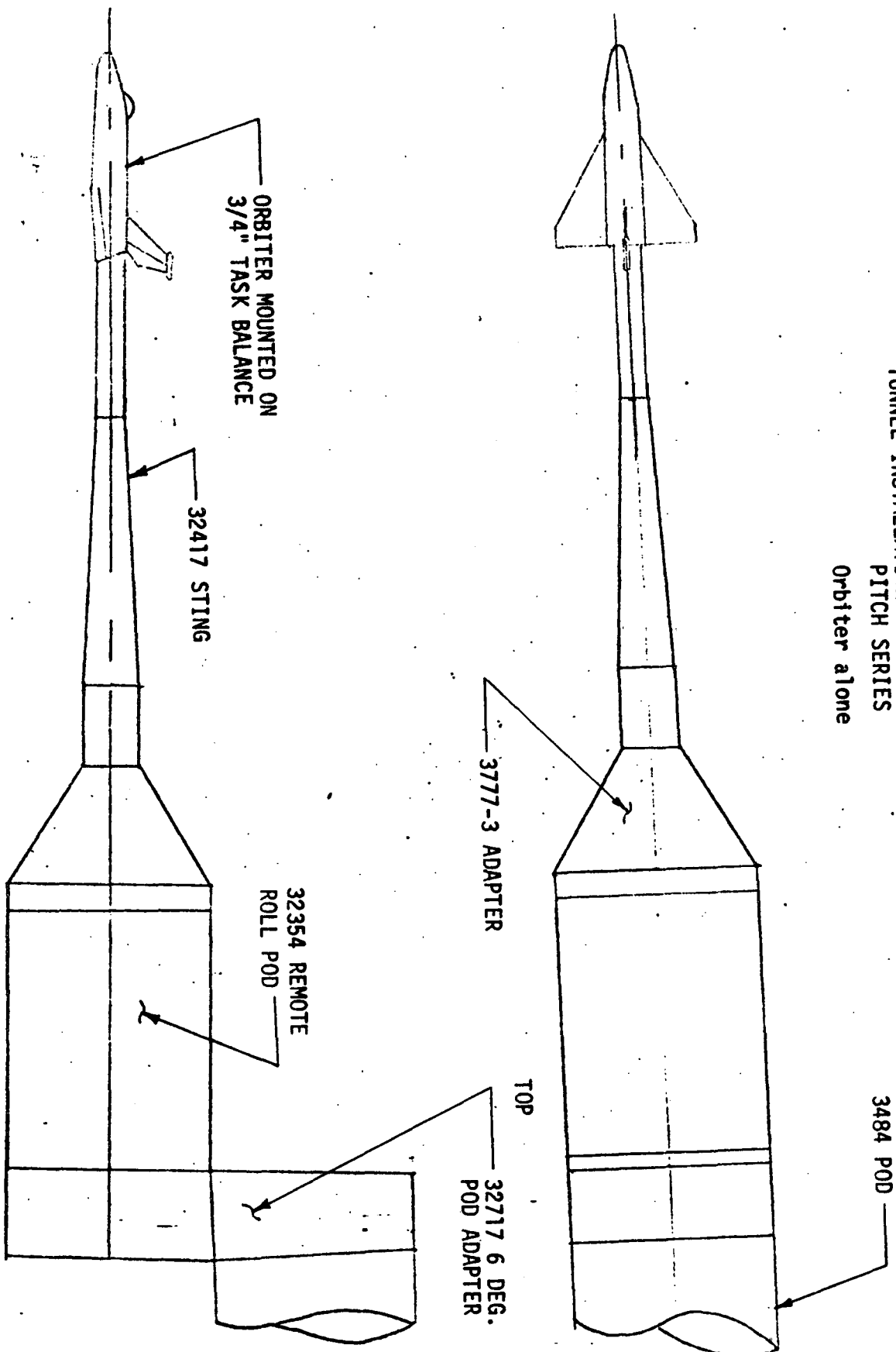


Figure 54. Tunnel Installation for the OBT Configuration With 6° Angle of Attack-Yaw Series (Boosters Fixed to the Centerline Tank)

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION
PITCH SERIES
Orbiter alone



SIDE

TOP

Figure 55. Tunnel Installation for the Orbiter Alone Configuration

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION
PITCH SERIES

Centerline tank alone.

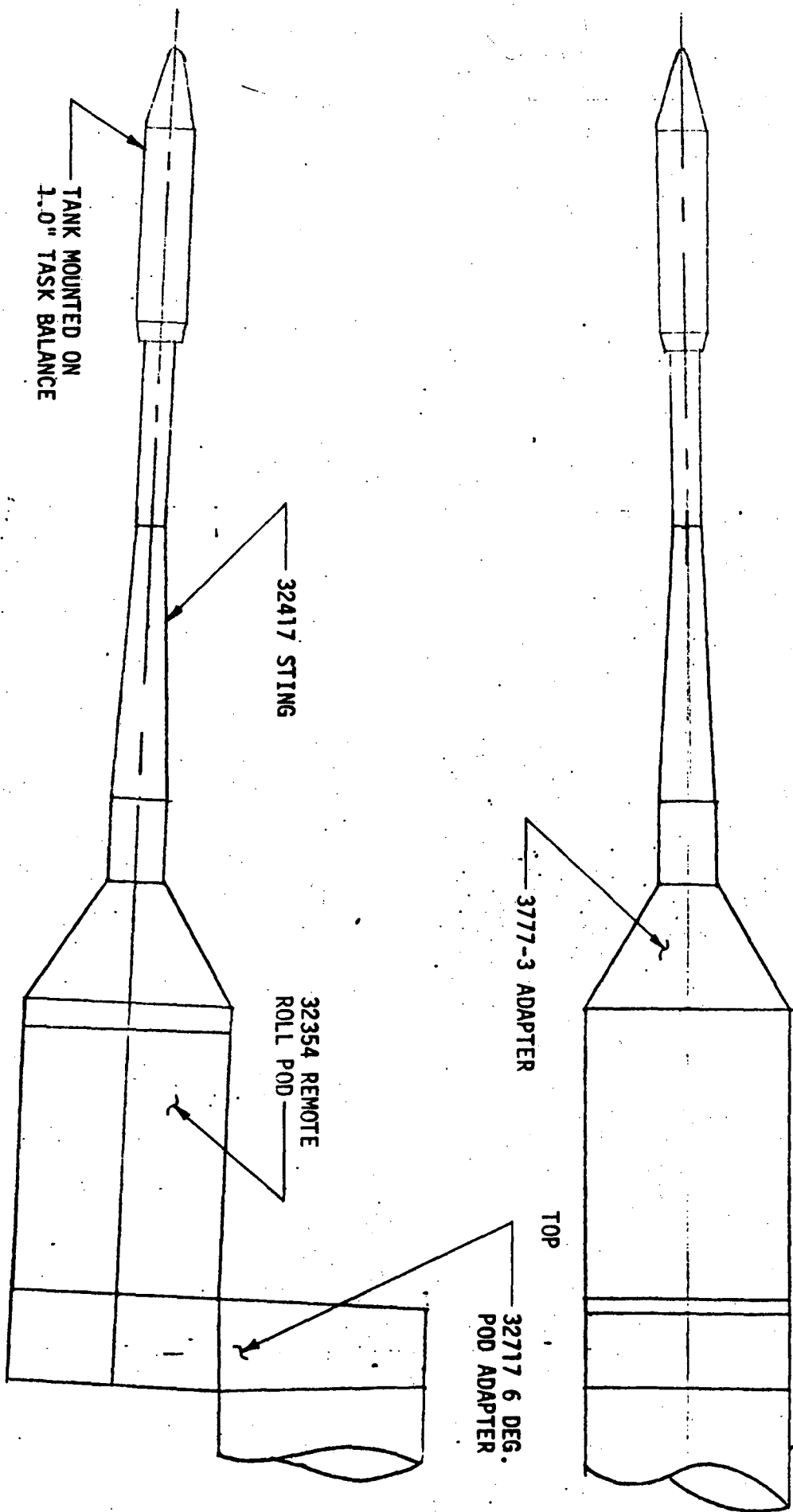


Figure 56. Tunnel Installation for the Tank Alone Configuration

TUNNEL INSTALLATION FOR THE OBT CONFIGURATION
PITCH SERIES
Booster alone

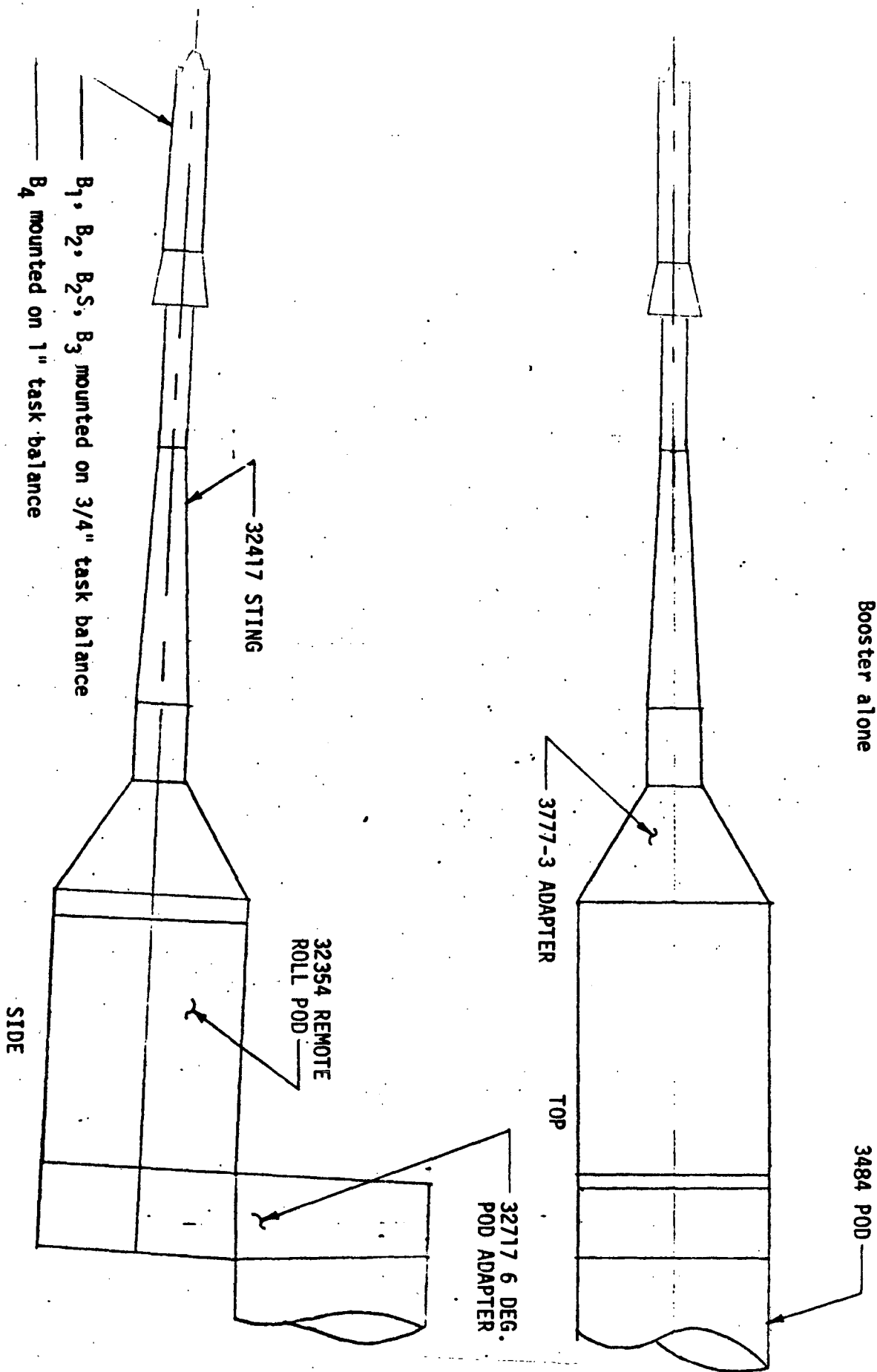
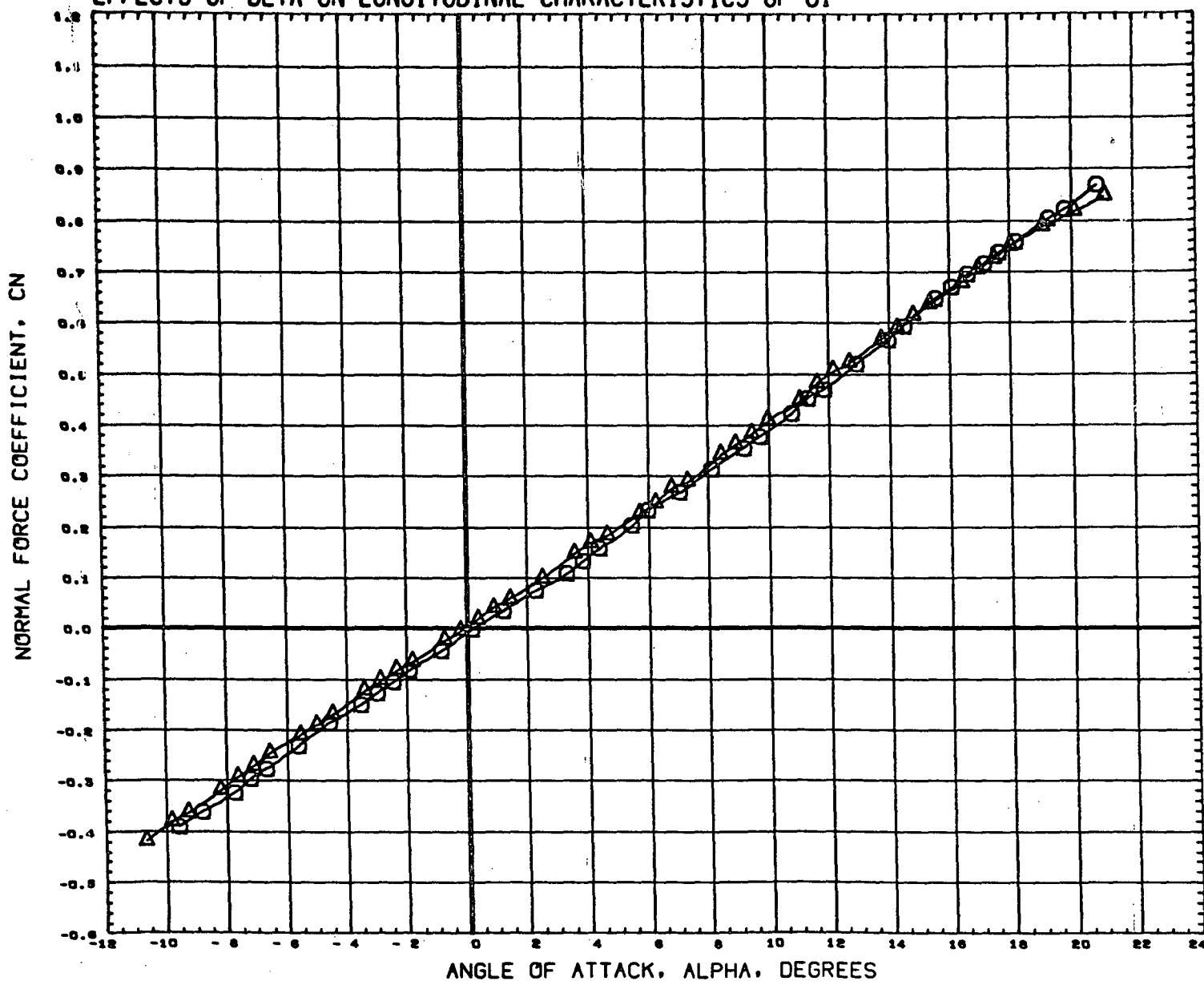


Figure 57. Tunnel Installation for the Booster Alone Configuration

DATA FIGURES

Tabulations of the plotted data and corresponding source data are available from SADSAC Operations.

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



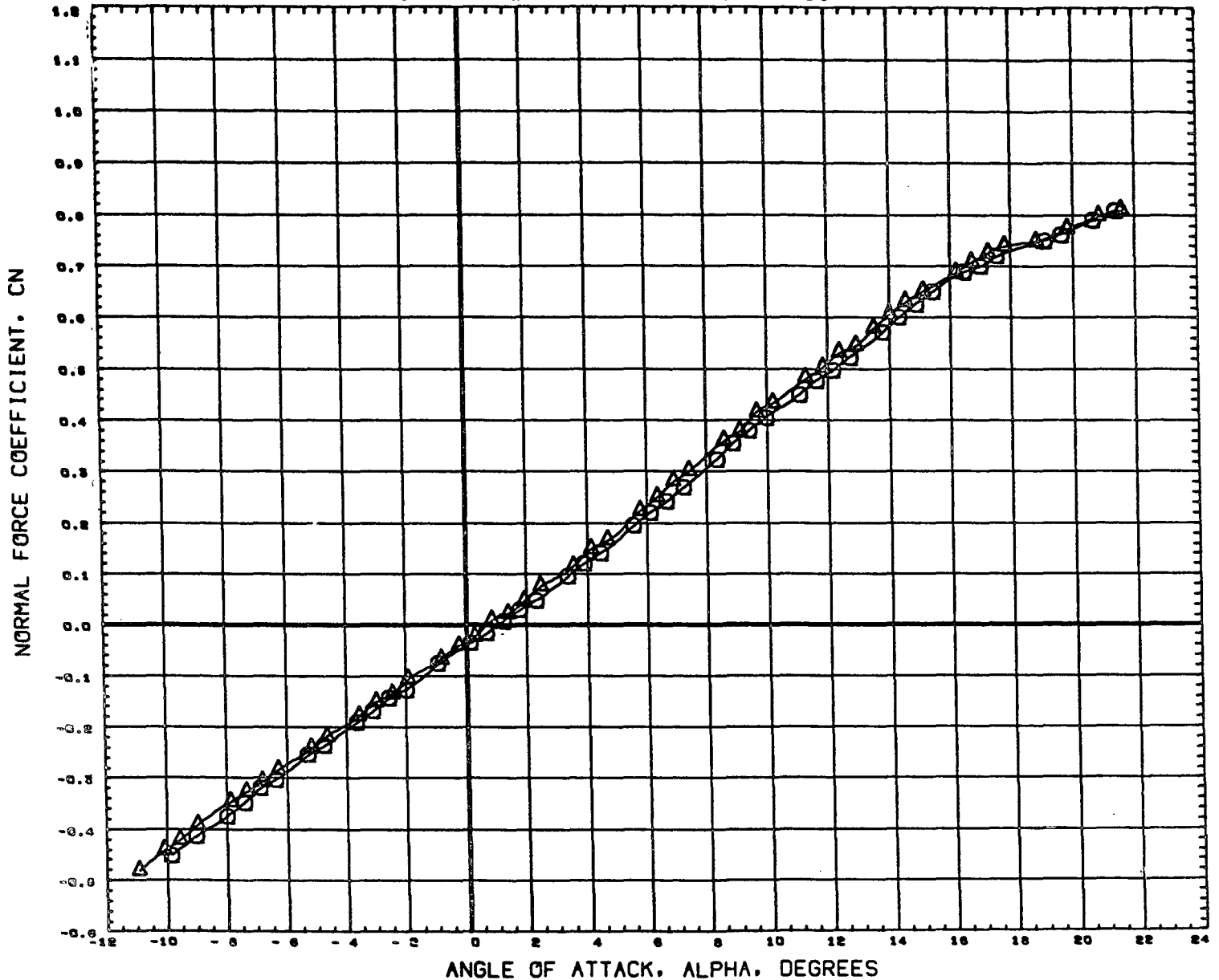
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 1

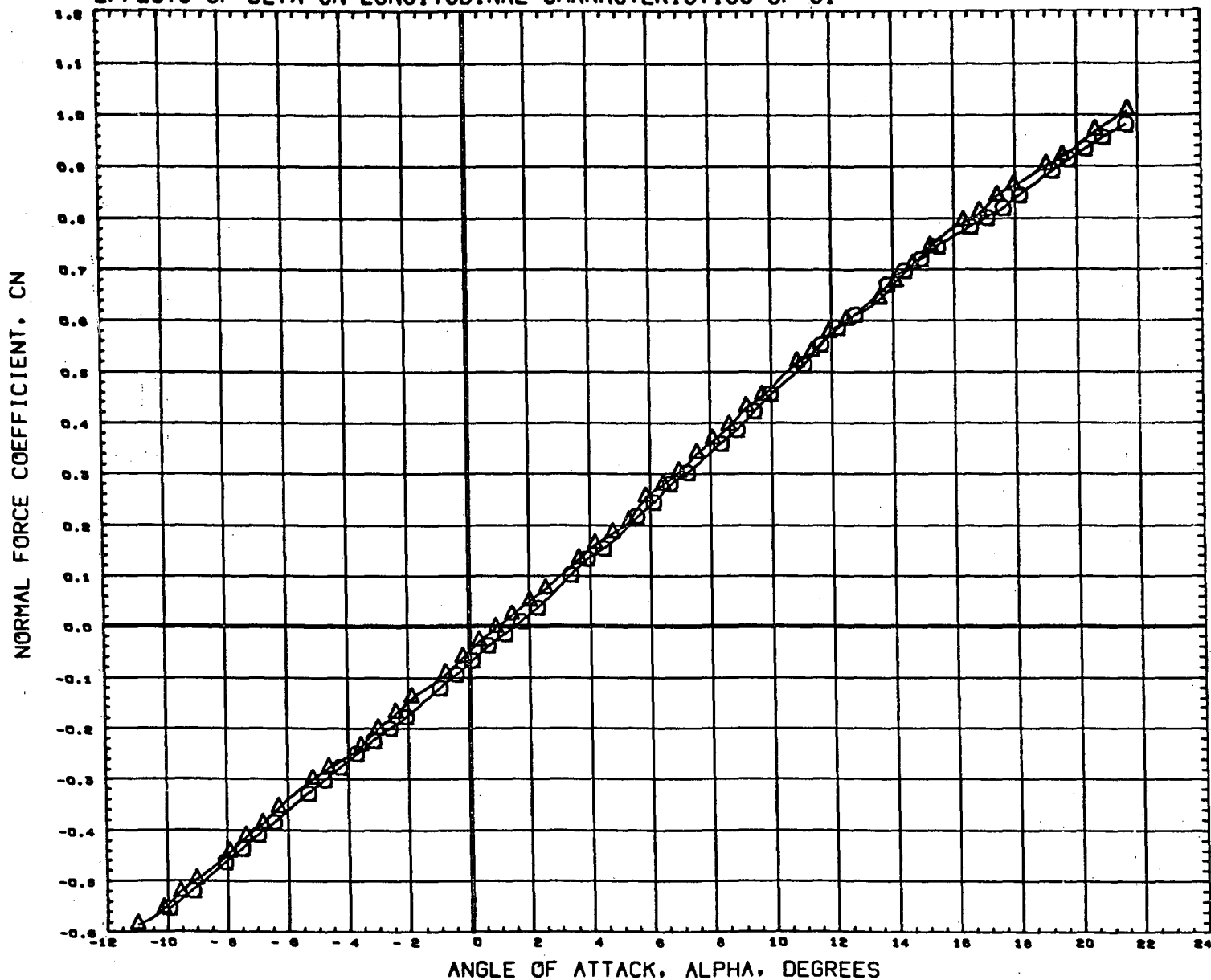
EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701) ○	MDAC S-222 ORBITER ALONE 01
(CD7702) △	MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



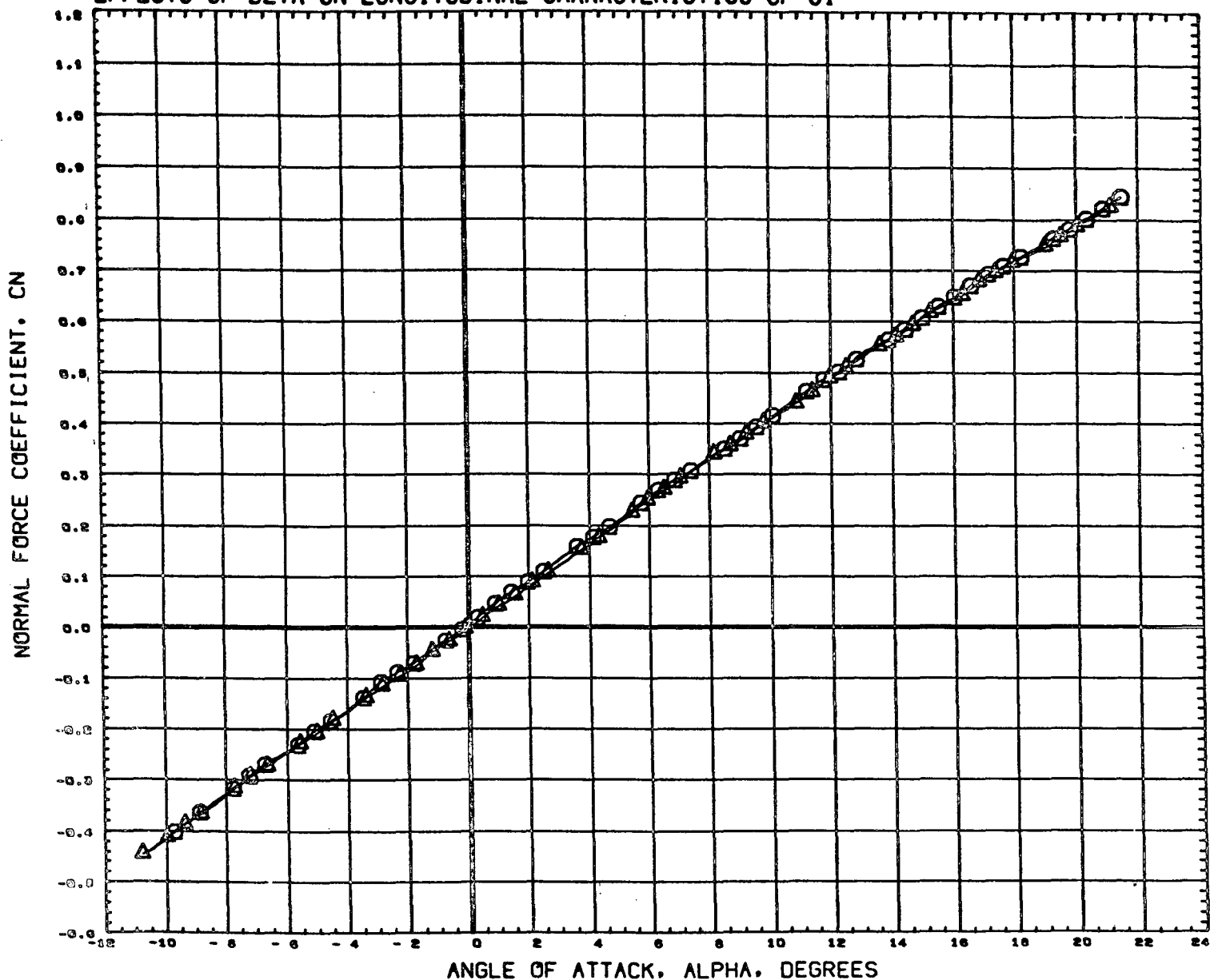
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE 01
(CD7702)	MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF 609.3004 IN.
				BREF 882.0004 IN.
				XMRF 1066.0040 IN.
				YMRF 0.0000 IN.
				ZMRF 404.0004 IN.
				SCALE 0.0060

MACH 1.07

PAGE 3

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07701)	MDAC S-222 ORBITER ALONE 01
(C07702)	MDAC S-222 ORBITER ALONE 01

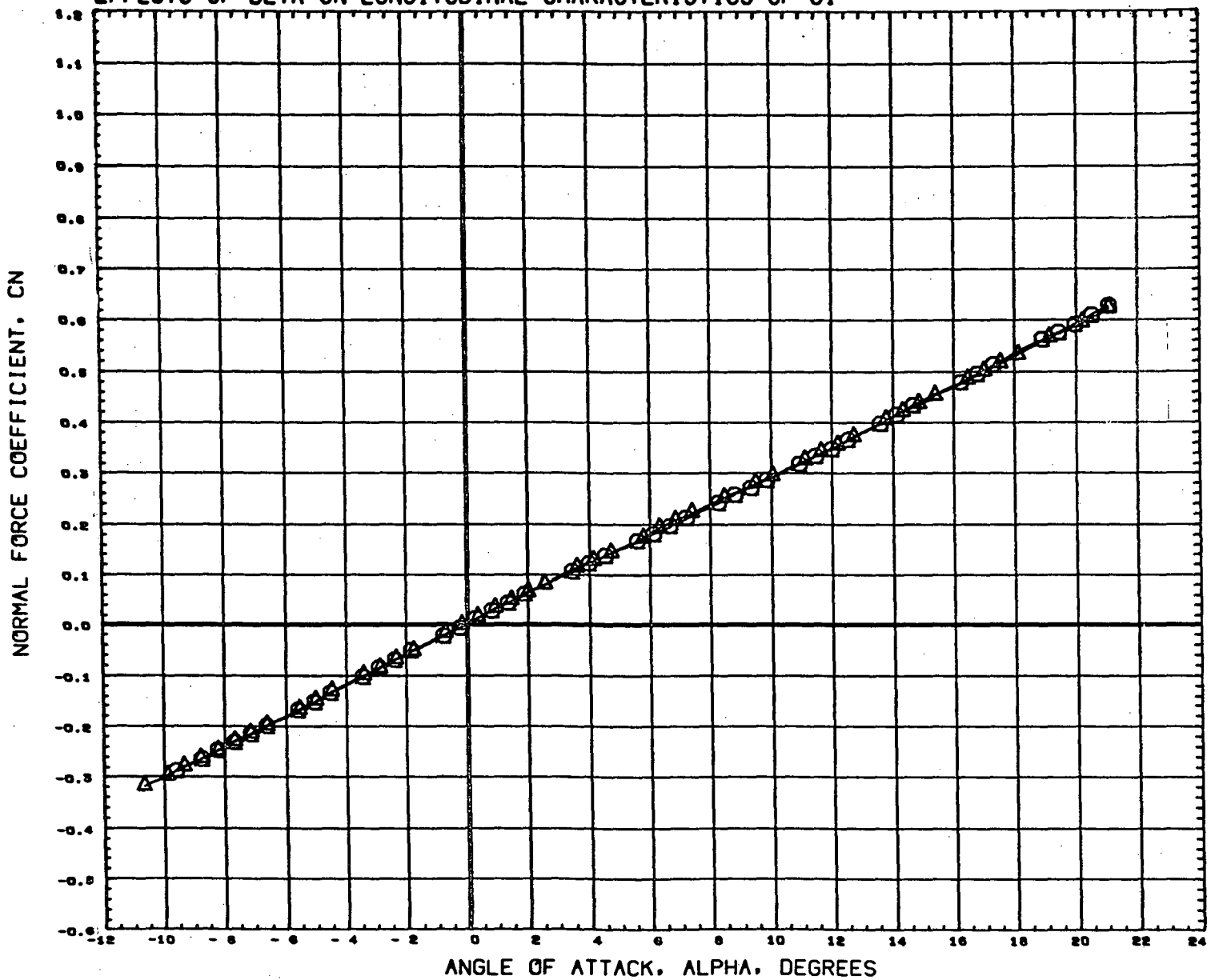
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRF	1068.0040 IN.
YMRF	0.0000 IN.
ZMRF	404.0004 IN.
SCALE	0.0060

MACH 1.51

PAGE 4

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



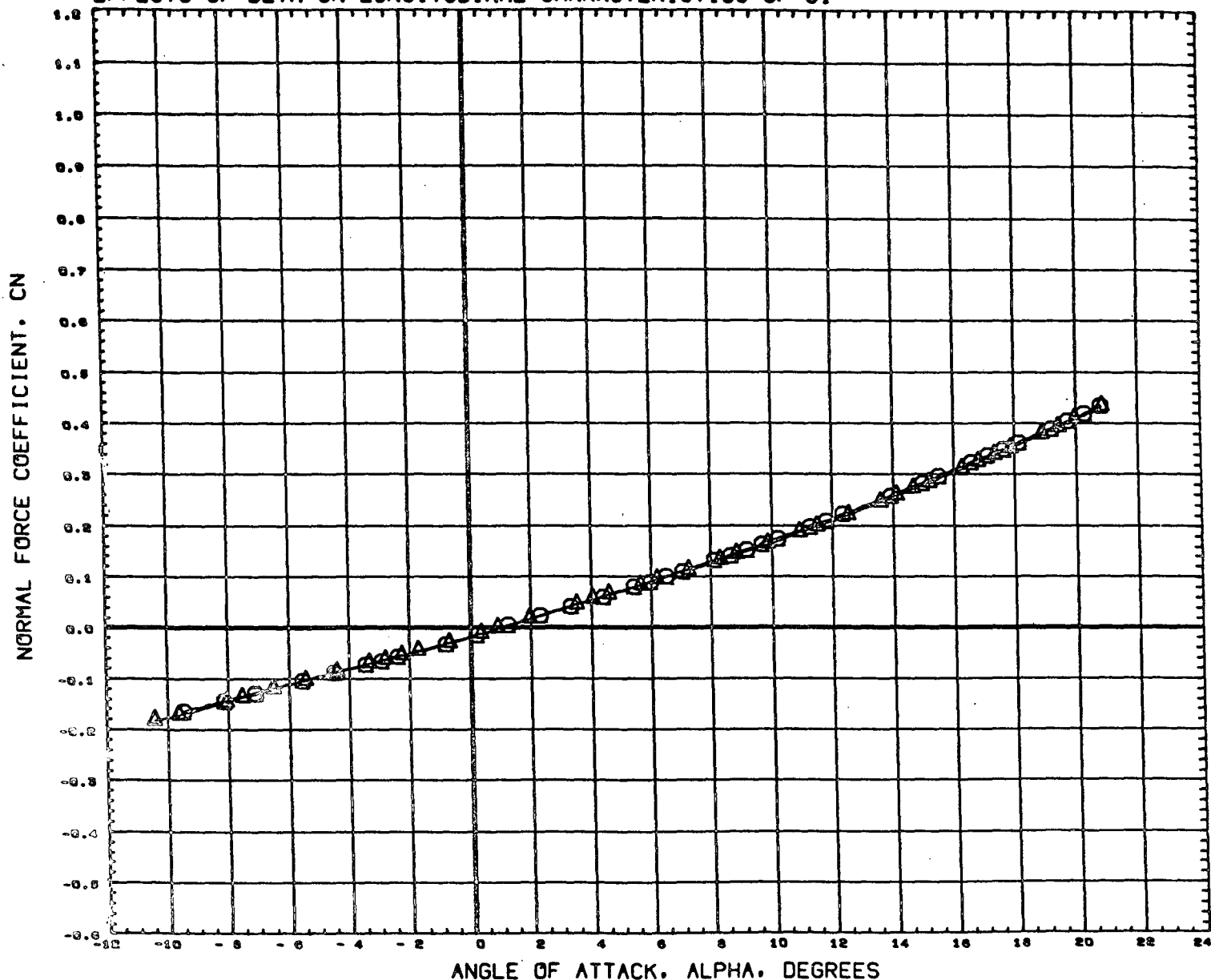
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 5

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701)  MDAC S-222 ORBITER ALONE 01
(CD7702)  MDAC S-222 ORBITER ALONE 01

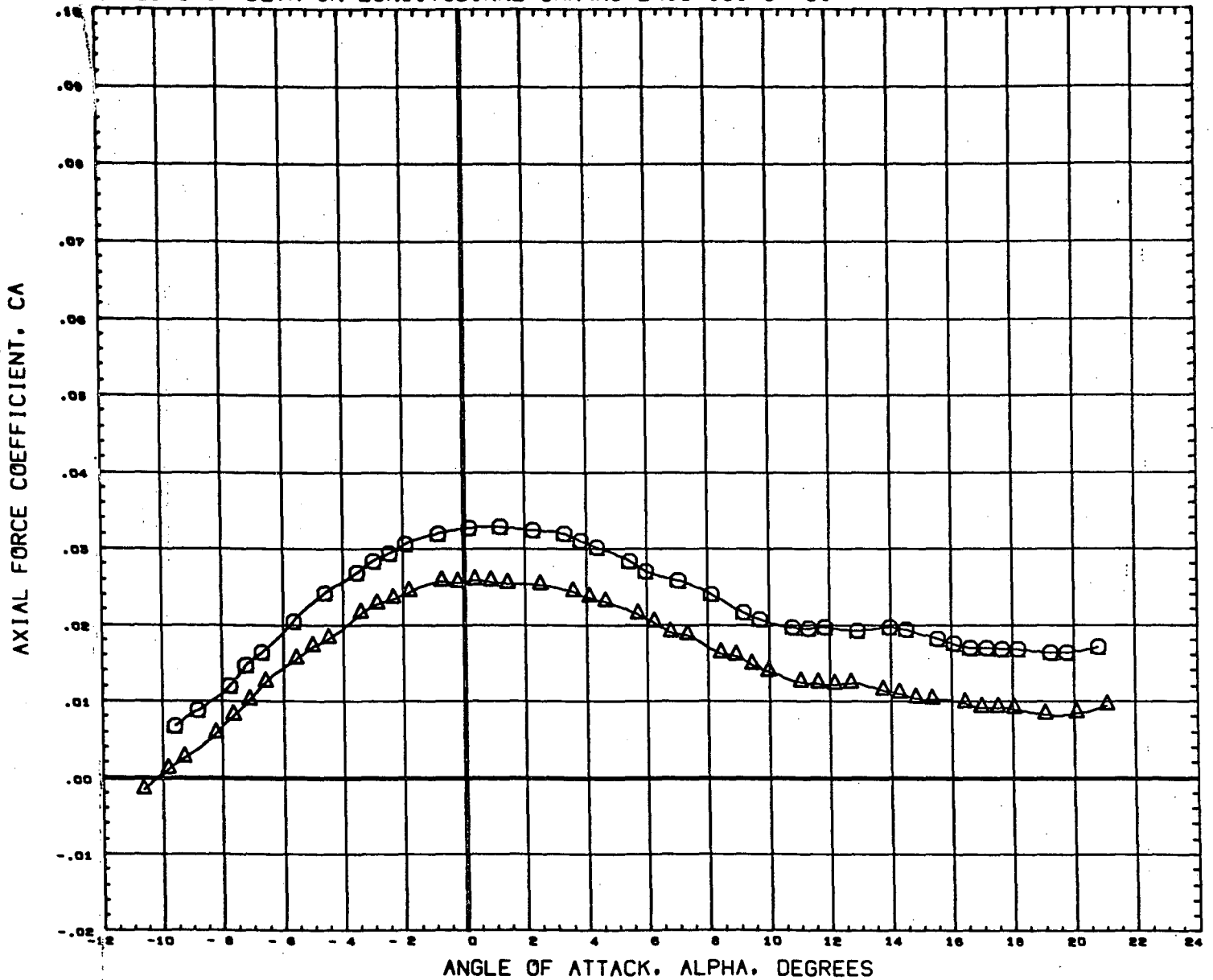
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	1066.0040 IN.
YMRP	0.0000 IN.
ZMRP	404.0004 IN.
SCALE	0.0060

MACH 4.47

PAGE 6

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) \bigcirc MDAC S-222 ORBITER ALONE 01
 (CD7702) \triangle MDAC S-222 ORBITER ALONE 01

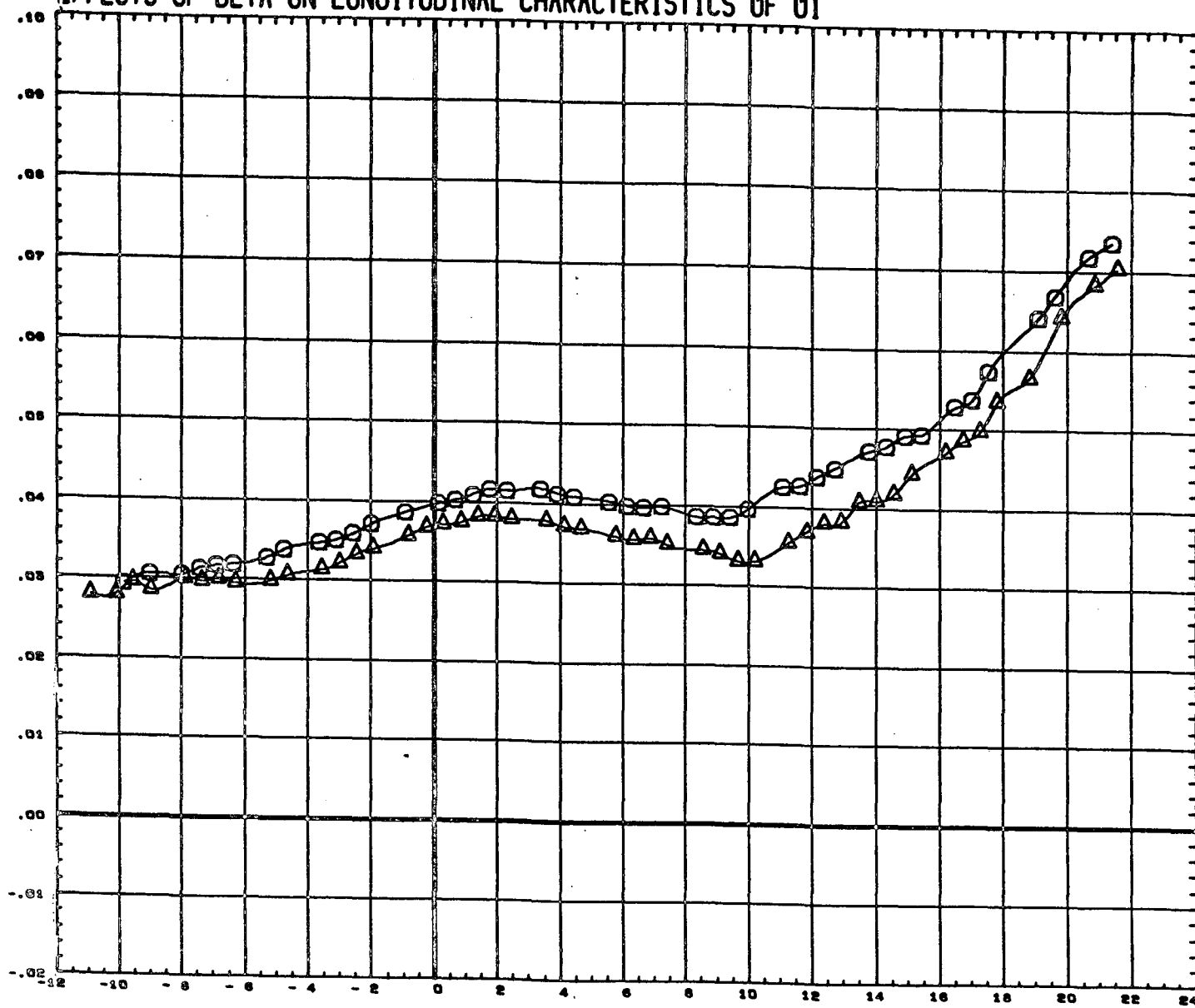
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	809.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 7

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1

AXIAL FORCE COEFFICIENT, CA



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE O1
 (CD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRF	1068.0040 IN.
				YMRF	0.0000 IN.
				ZMRF	404.0004 IN.
				SCALE	0.0060

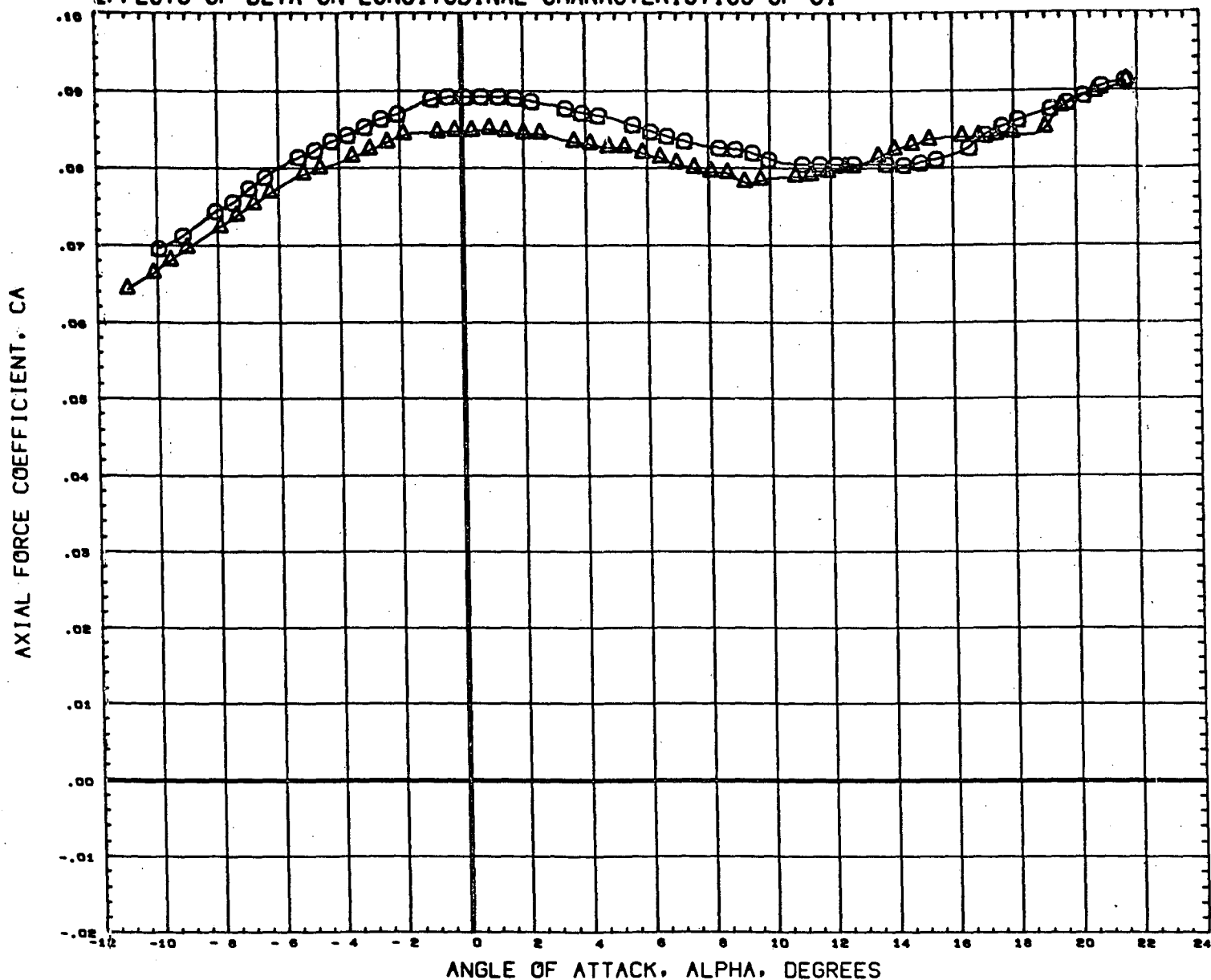
MACH

.89

PAGE

8

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



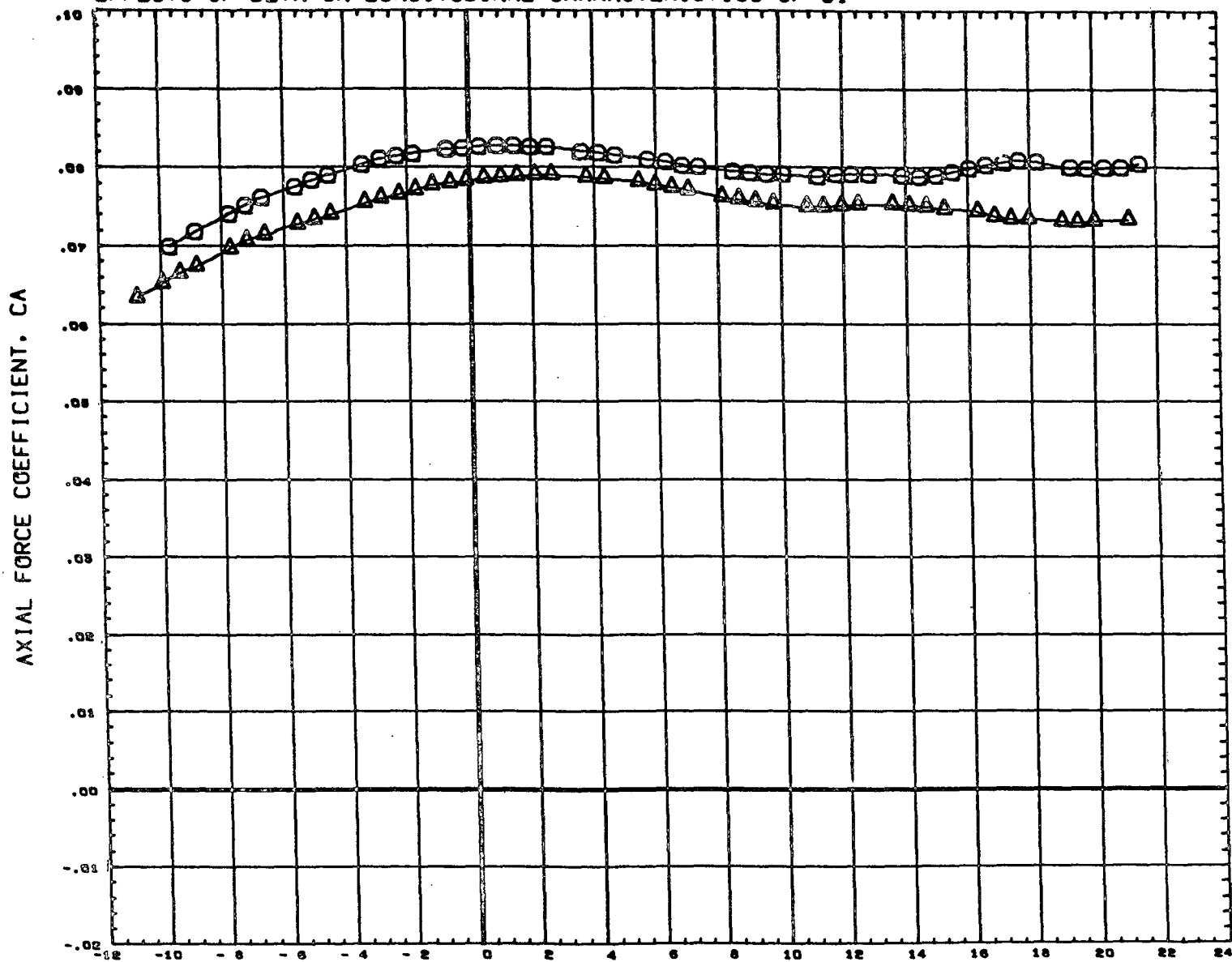
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE 01
 (CD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	862.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 9

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) ○ MDAC S-222 ORBITER ALONE O1
(CD7702) △ MDAC S-222 ORBITER ALONE O1

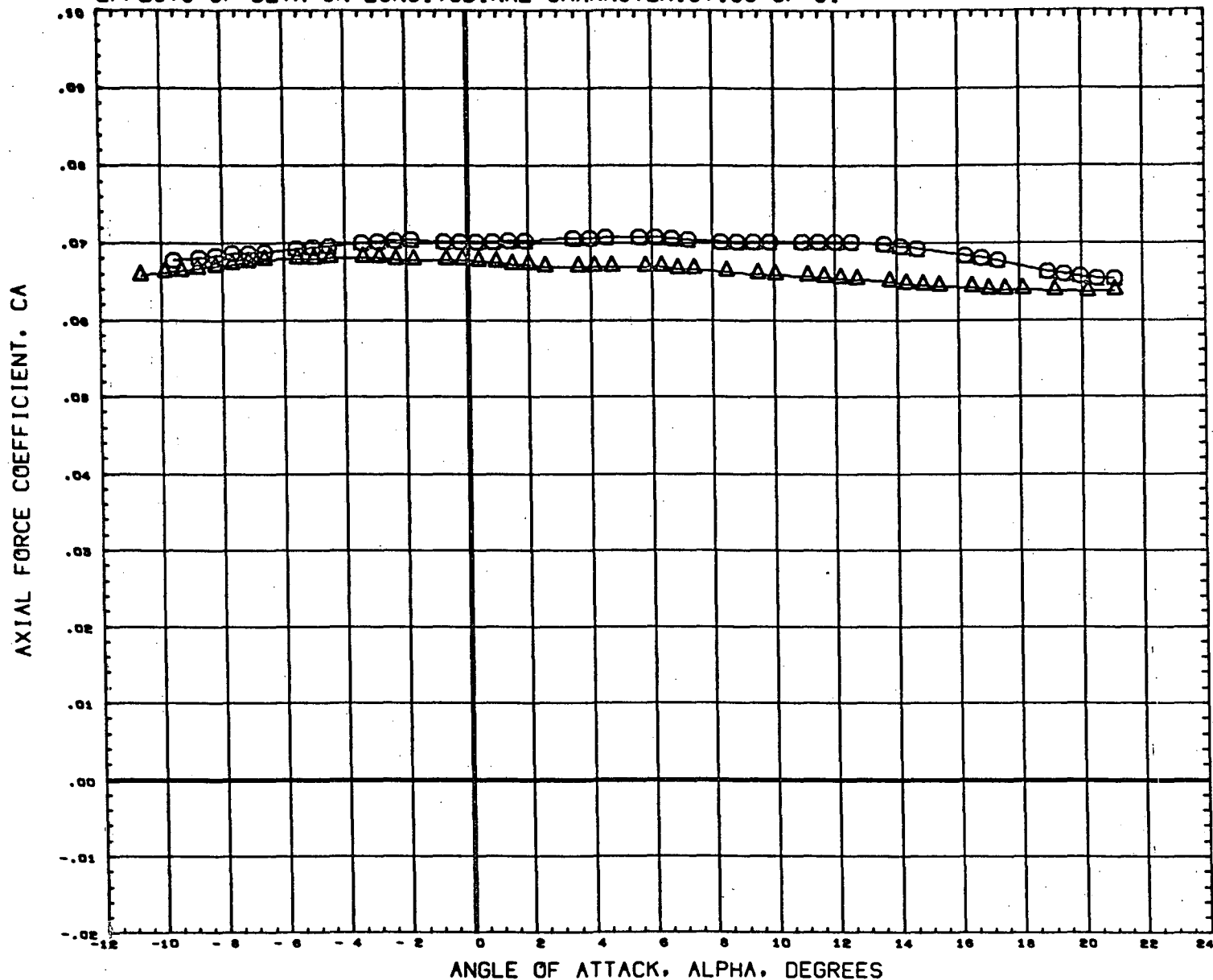
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.9004 IN.
BREF 862.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.51

PAGE 10

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



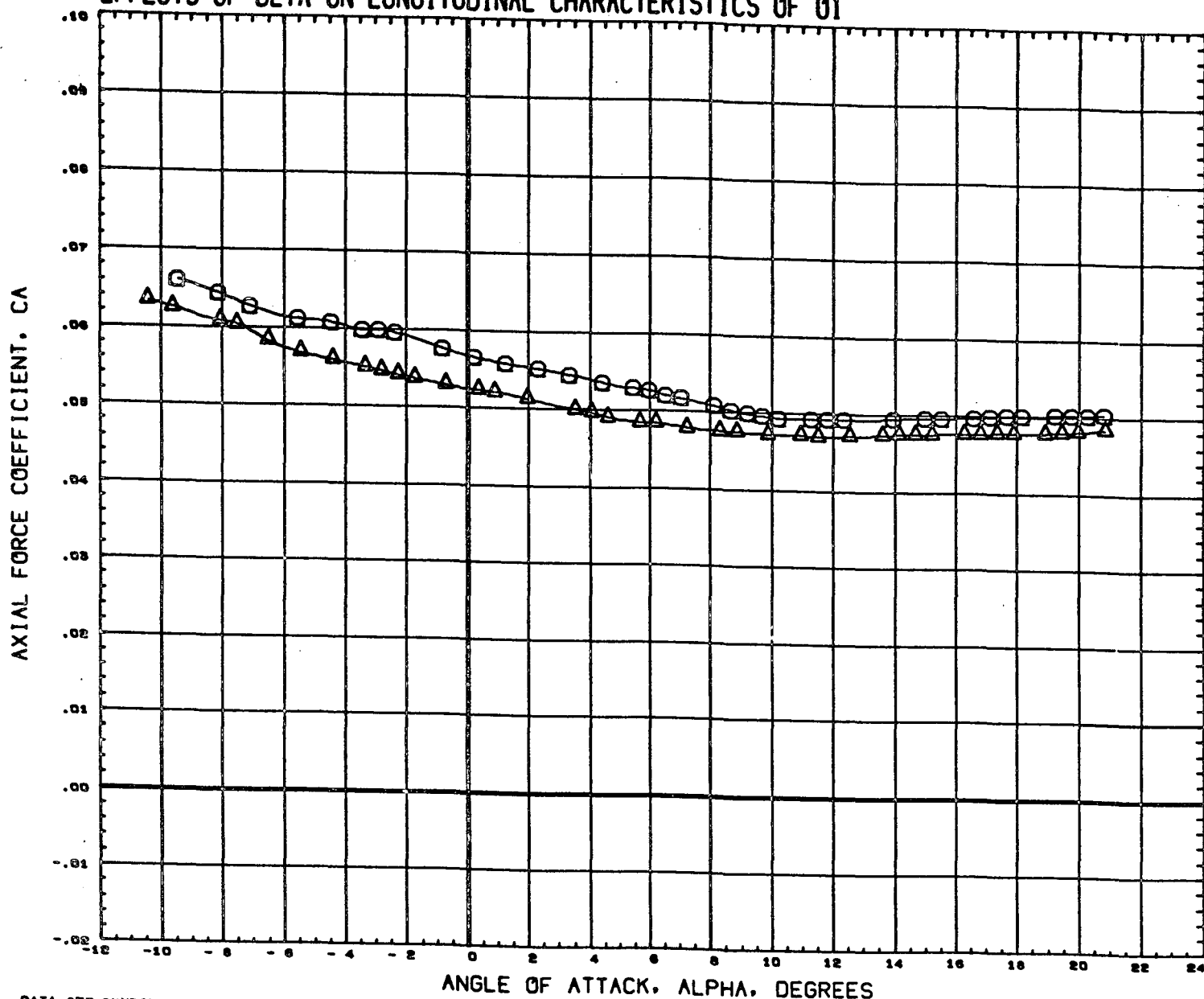
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE O1
(CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF 609.3004 IN.
				BREF 882.0004 IN.
				XMRP 1068.0040 IN.
				YMRP 0.0000 IN.
				ZMRP 404.0004 IN.
				SCALE 0.0060

MACH 2.20

PAGE 11

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01

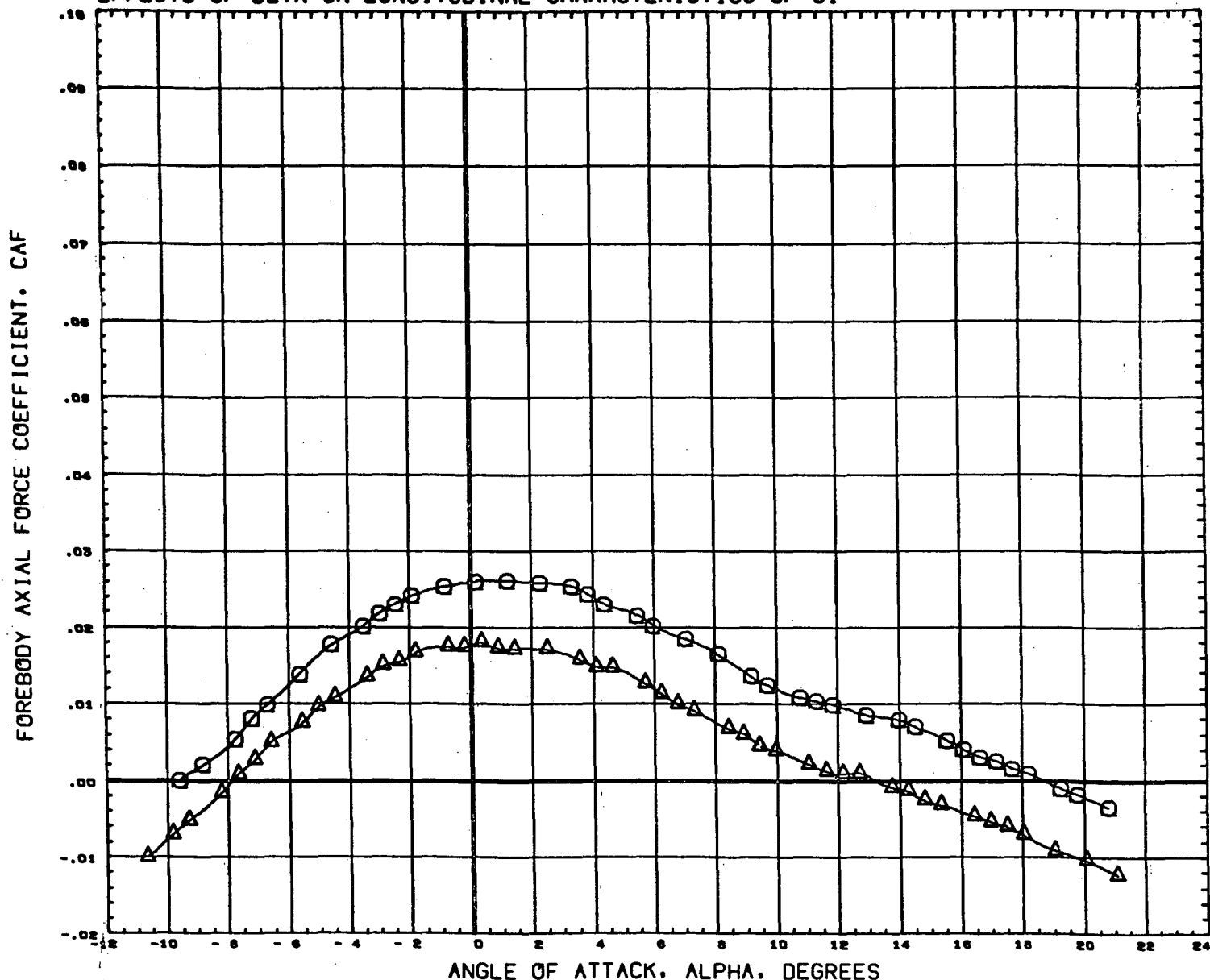


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



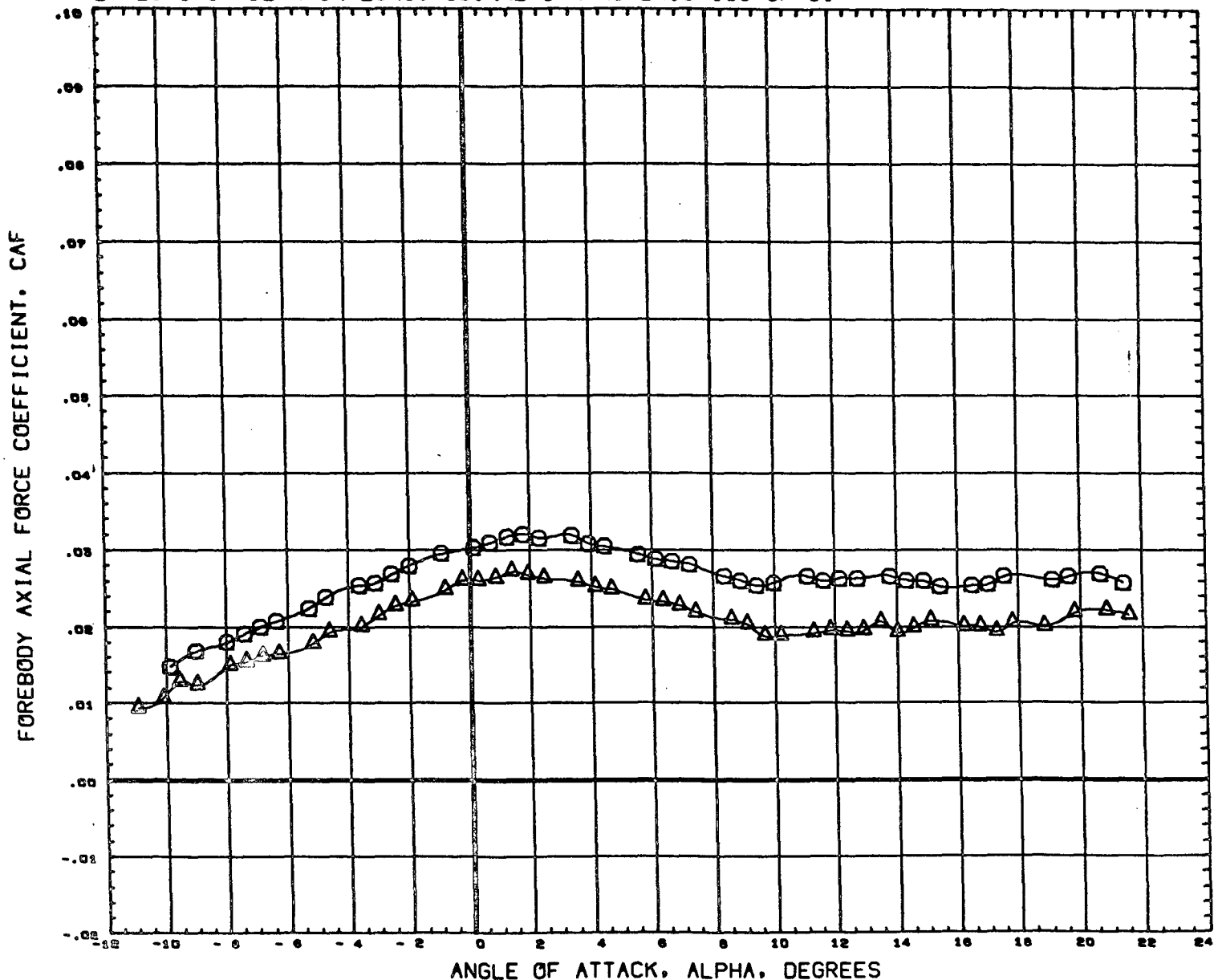
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0000

MACH .56

PAGE 13

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



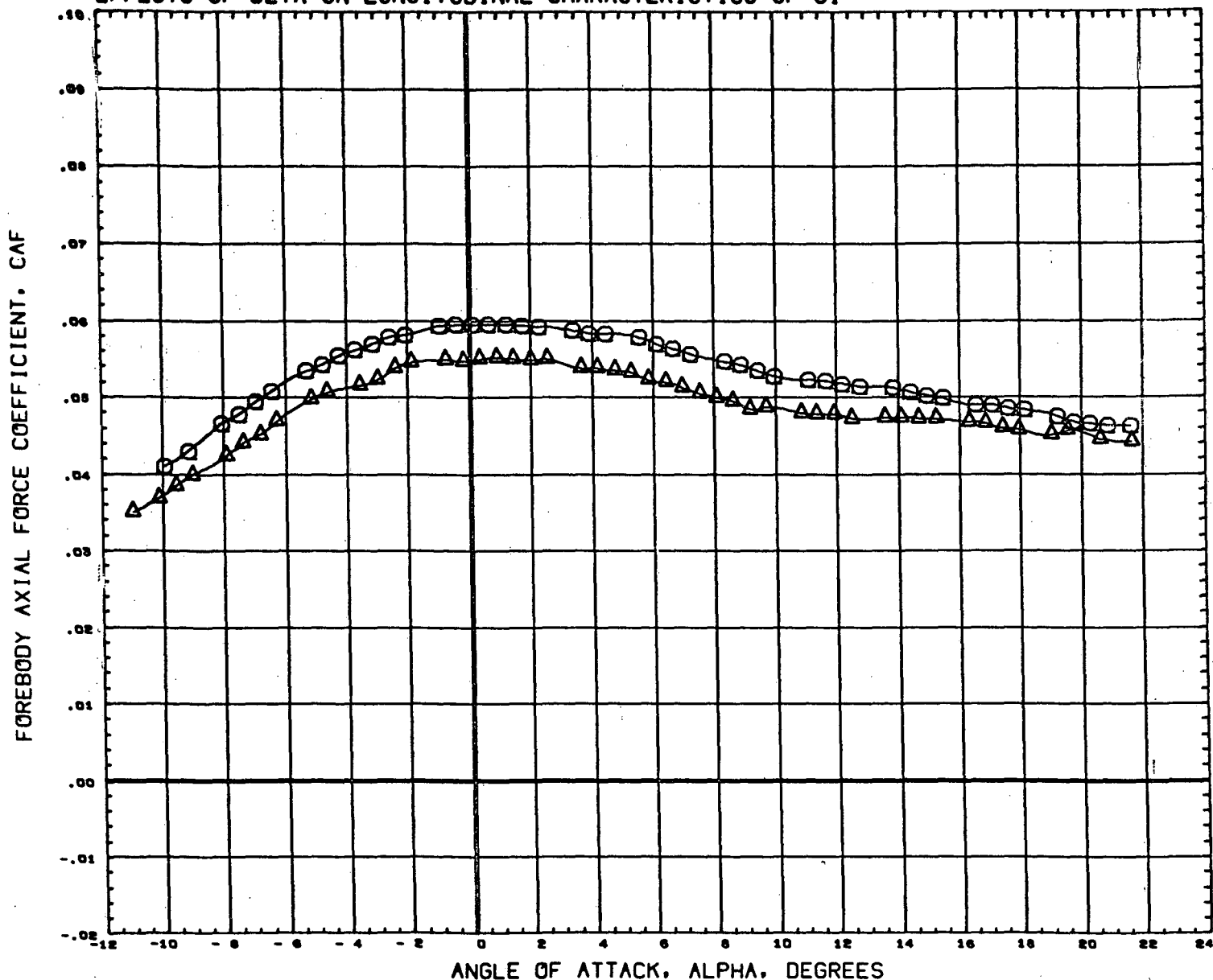
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE 01
 (CD7702) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH .89

PAGE 14

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



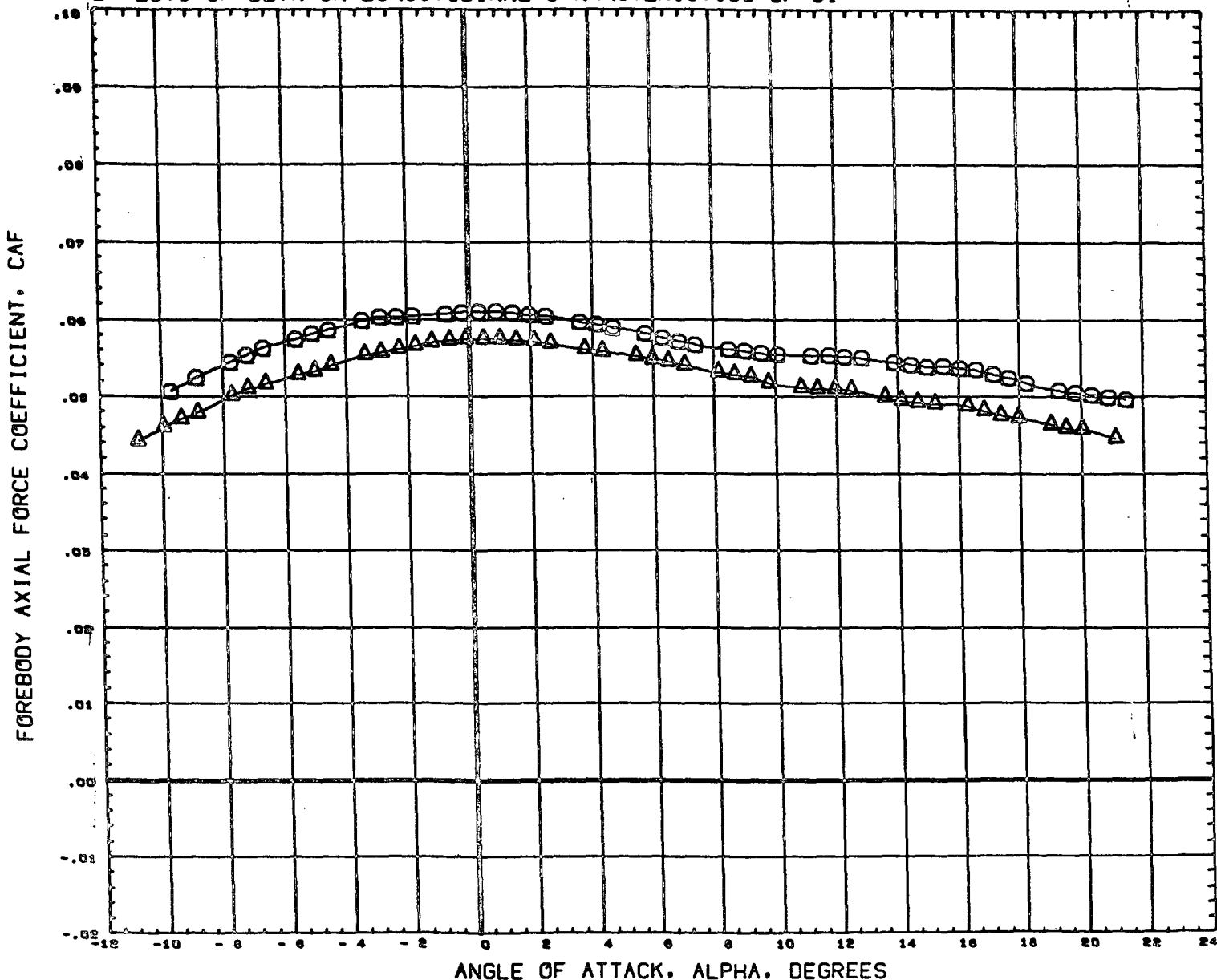
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) Q MDAC S-222 ORBITER ALONE O1
(CD7702) A MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 1.07

PAGE 15

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



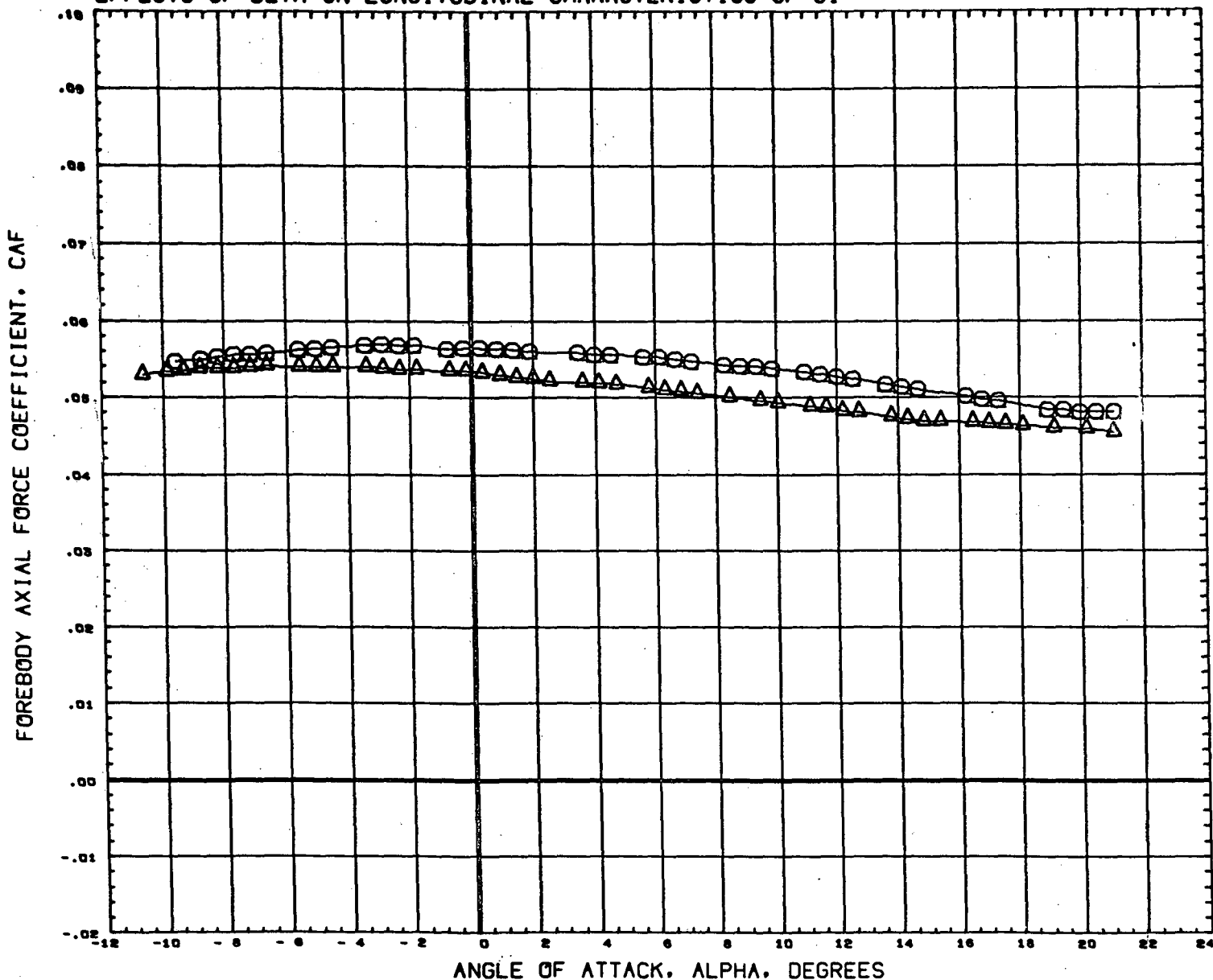
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE O1
(CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3195.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	882.0004 IN.
				XMRP	1069.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.51

PAGE 16

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



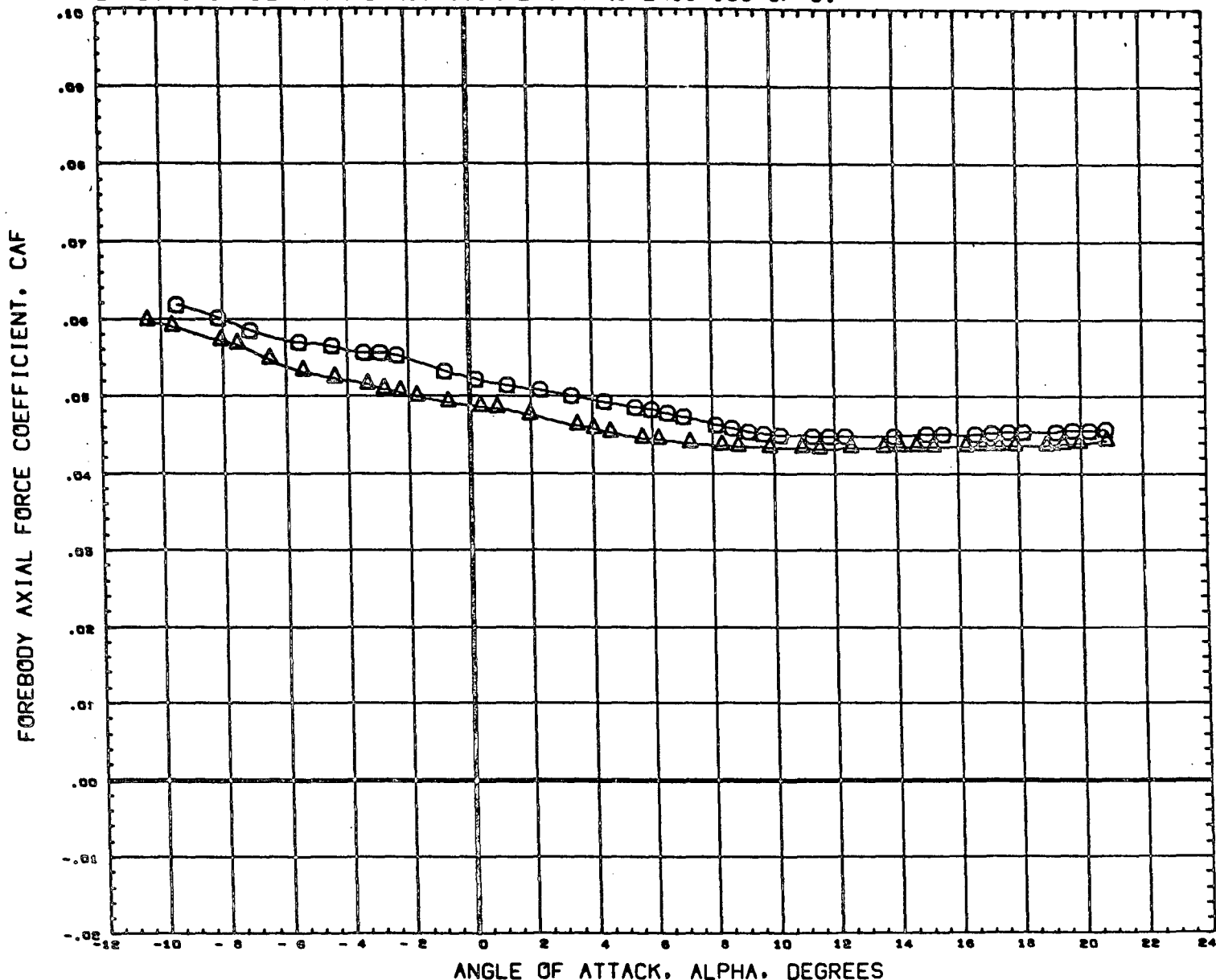
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE 01
(CD7702) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3195.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 17

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



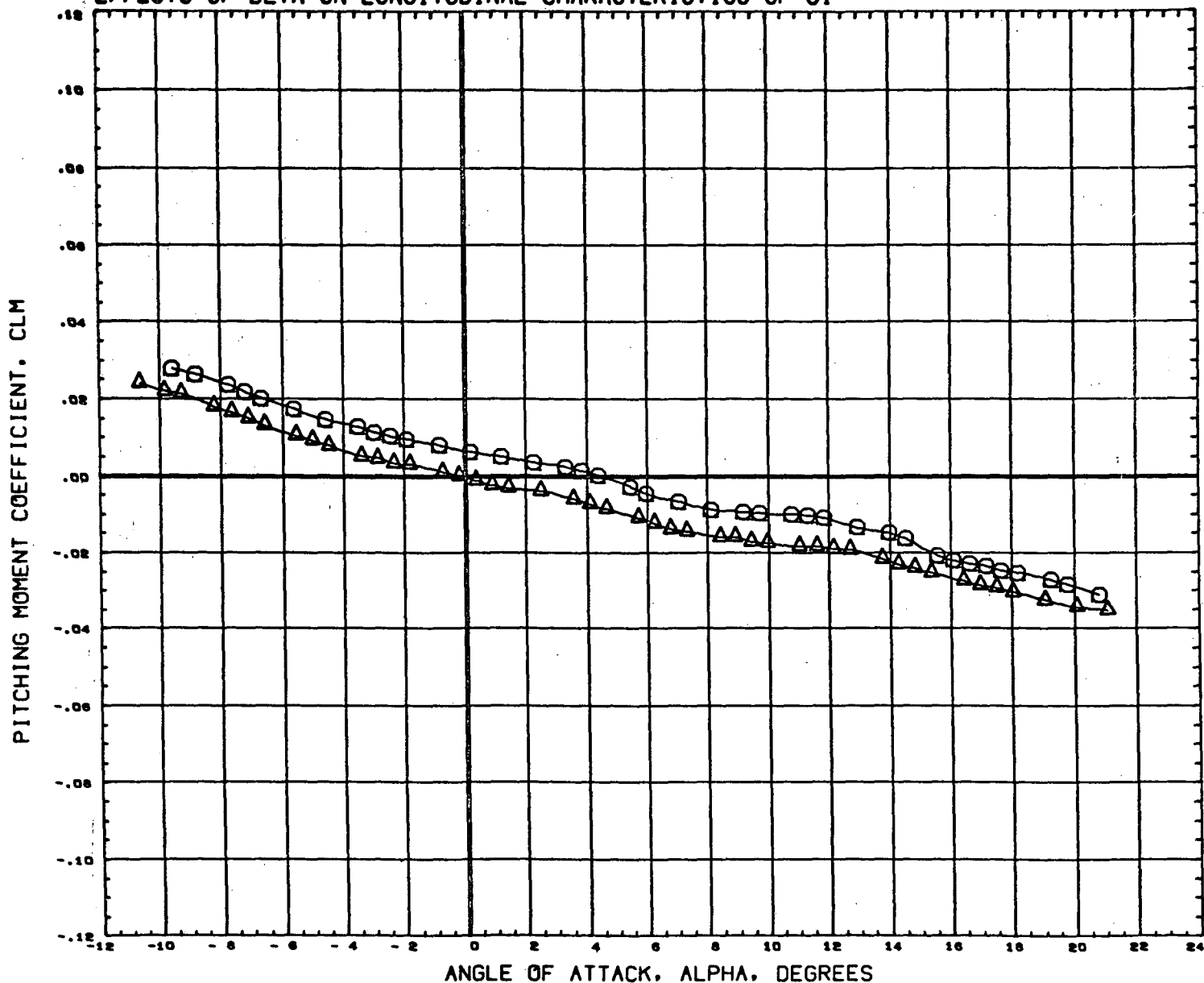
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3195.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

PAGE 18

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



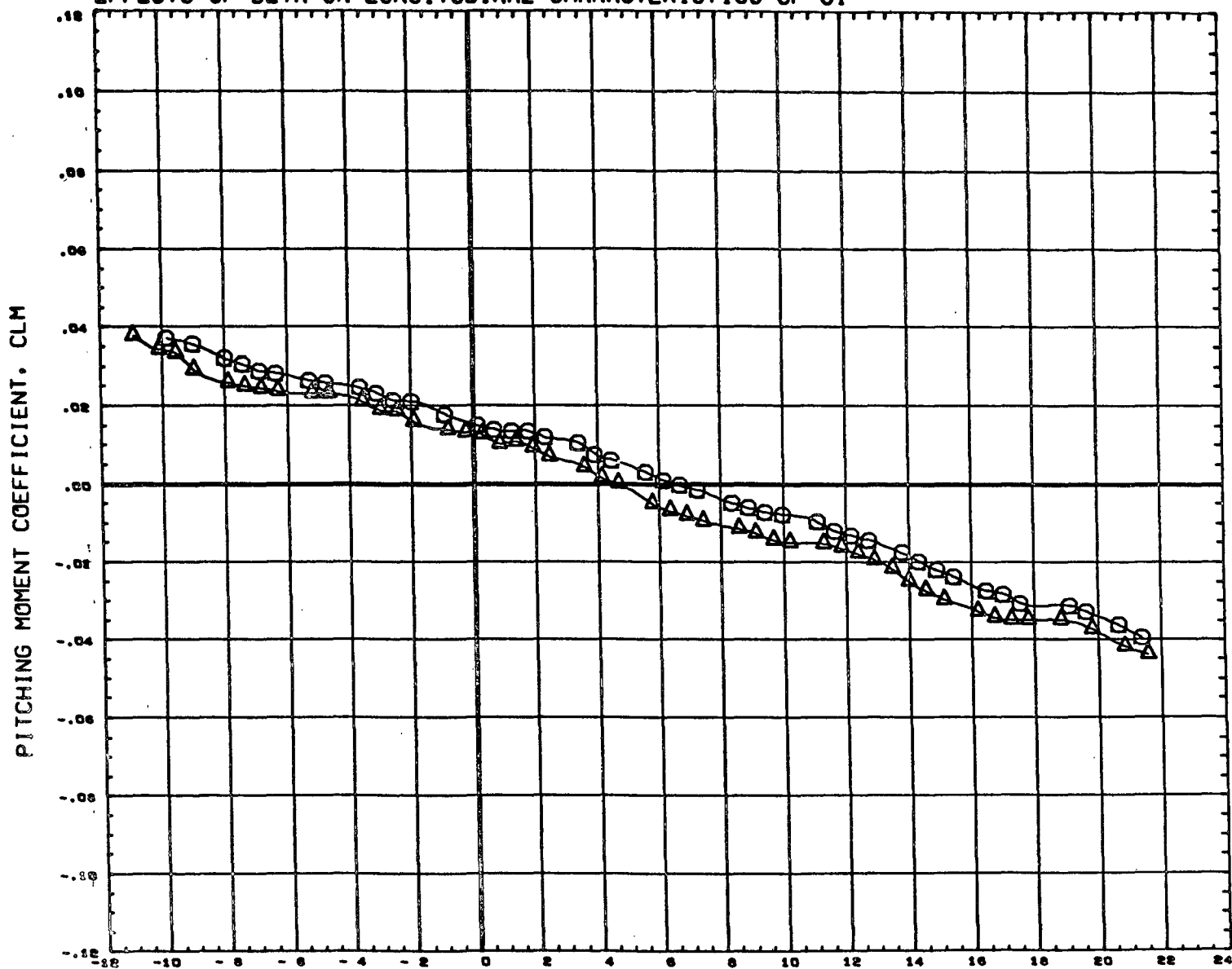
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE 01
 (CD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 19

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



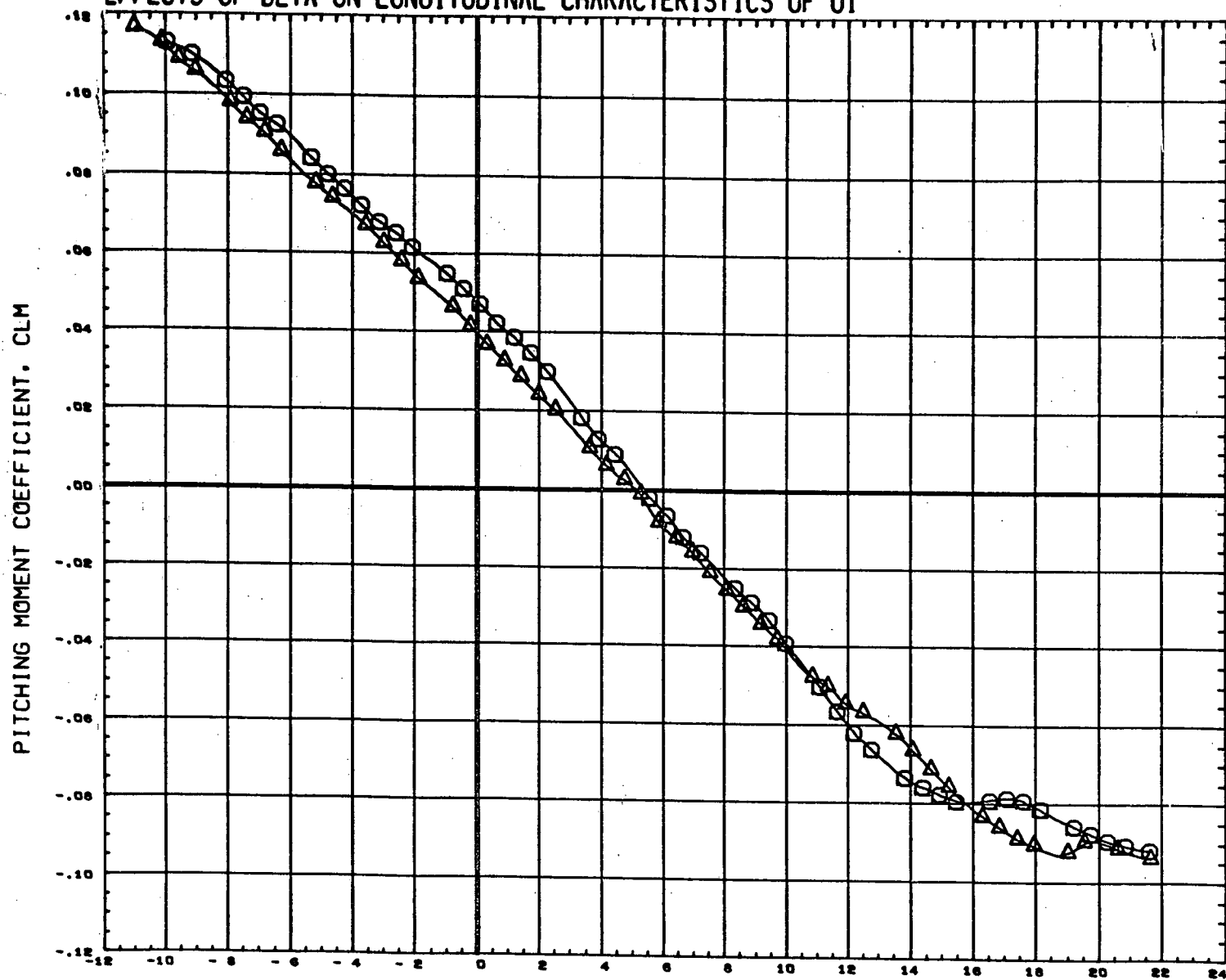
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) ○ MDAC S-222 ORBITER ALONE O1
(CD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 20

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE O1
 (CD7702) △ MDAC S-222 ORBITER ALONE O1

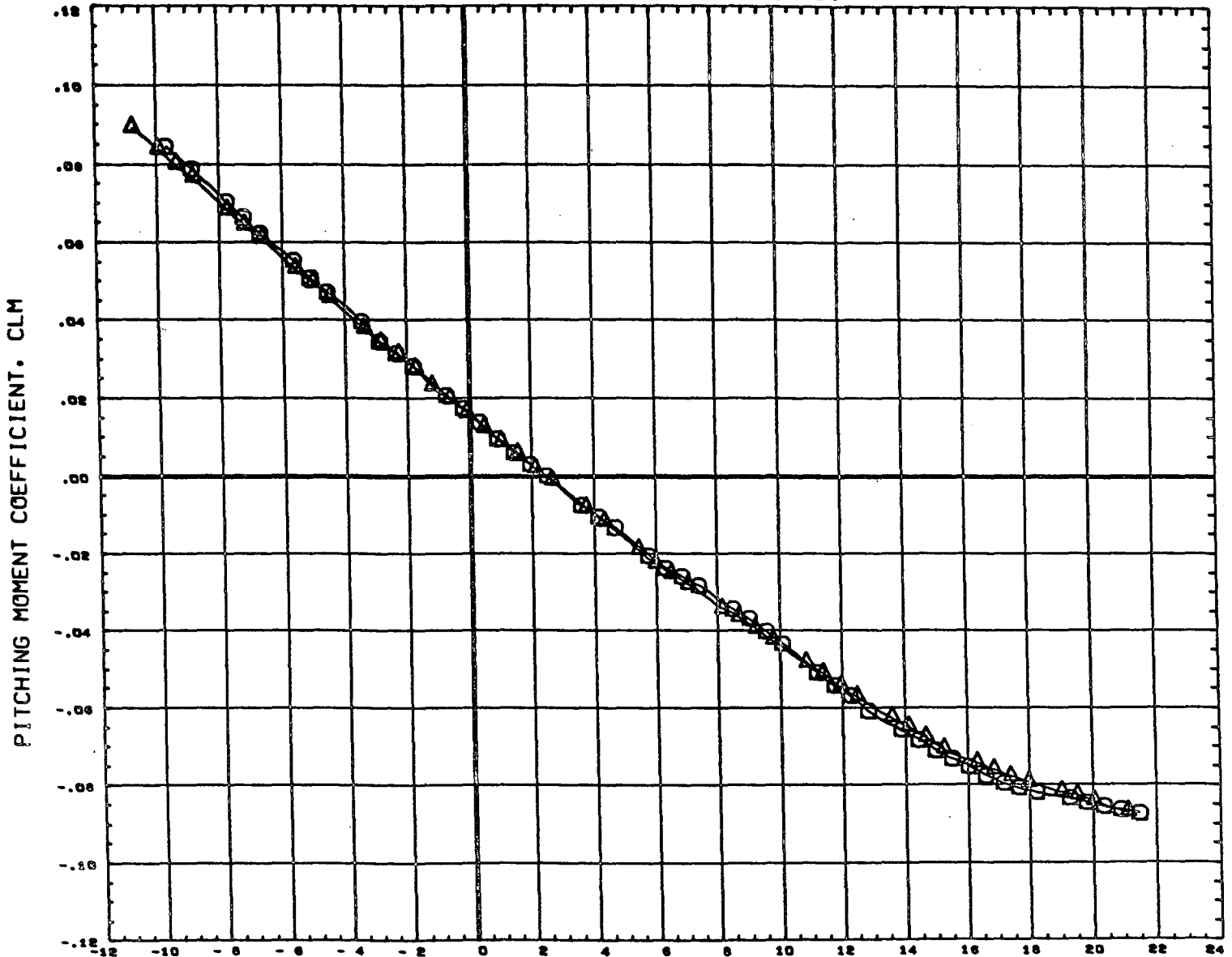
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.3004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 1.07

PAGE 21

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE 01
(CD7702) MDAC S-222 ORBITER ALONE 01

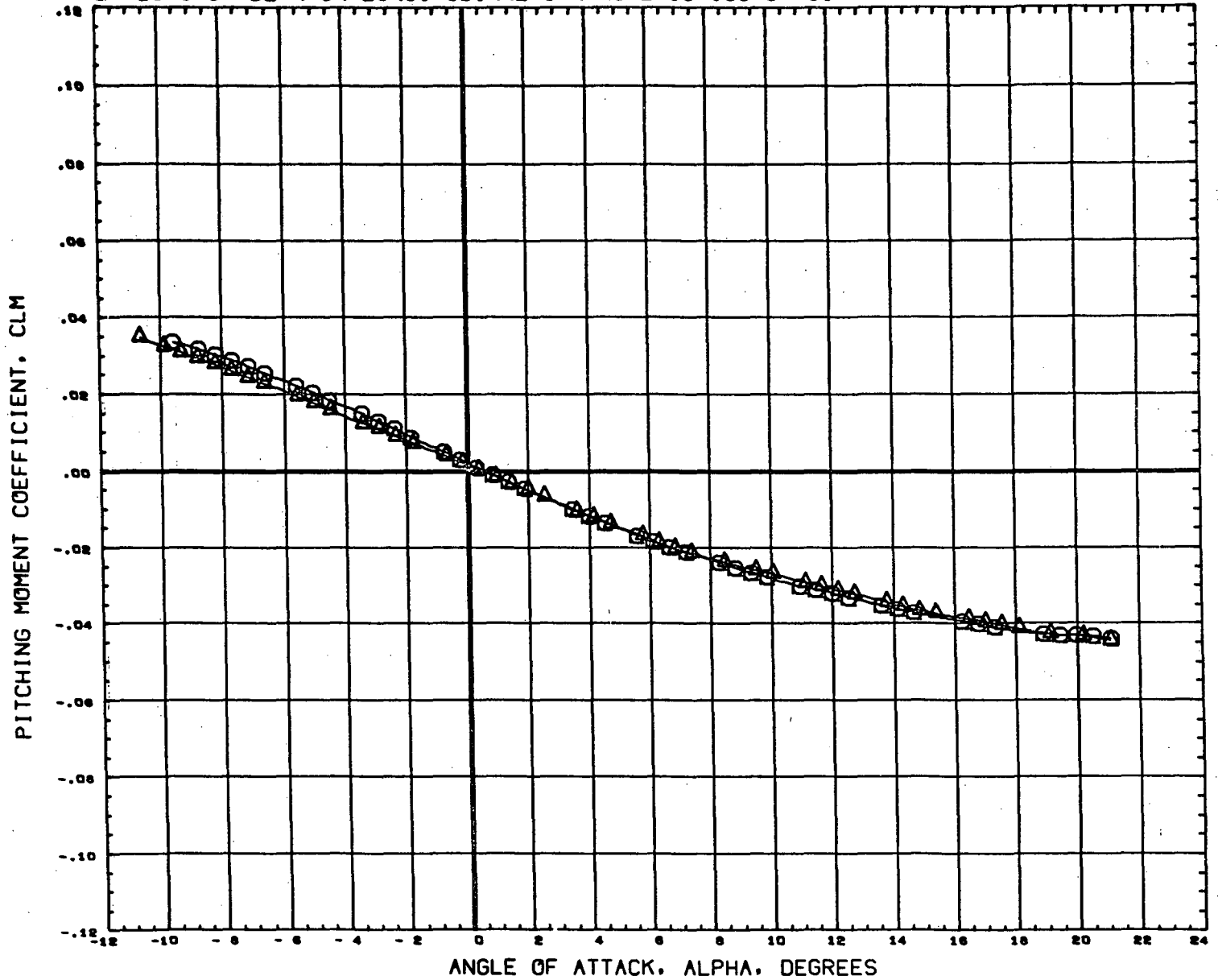
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.51

PAGE 22

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



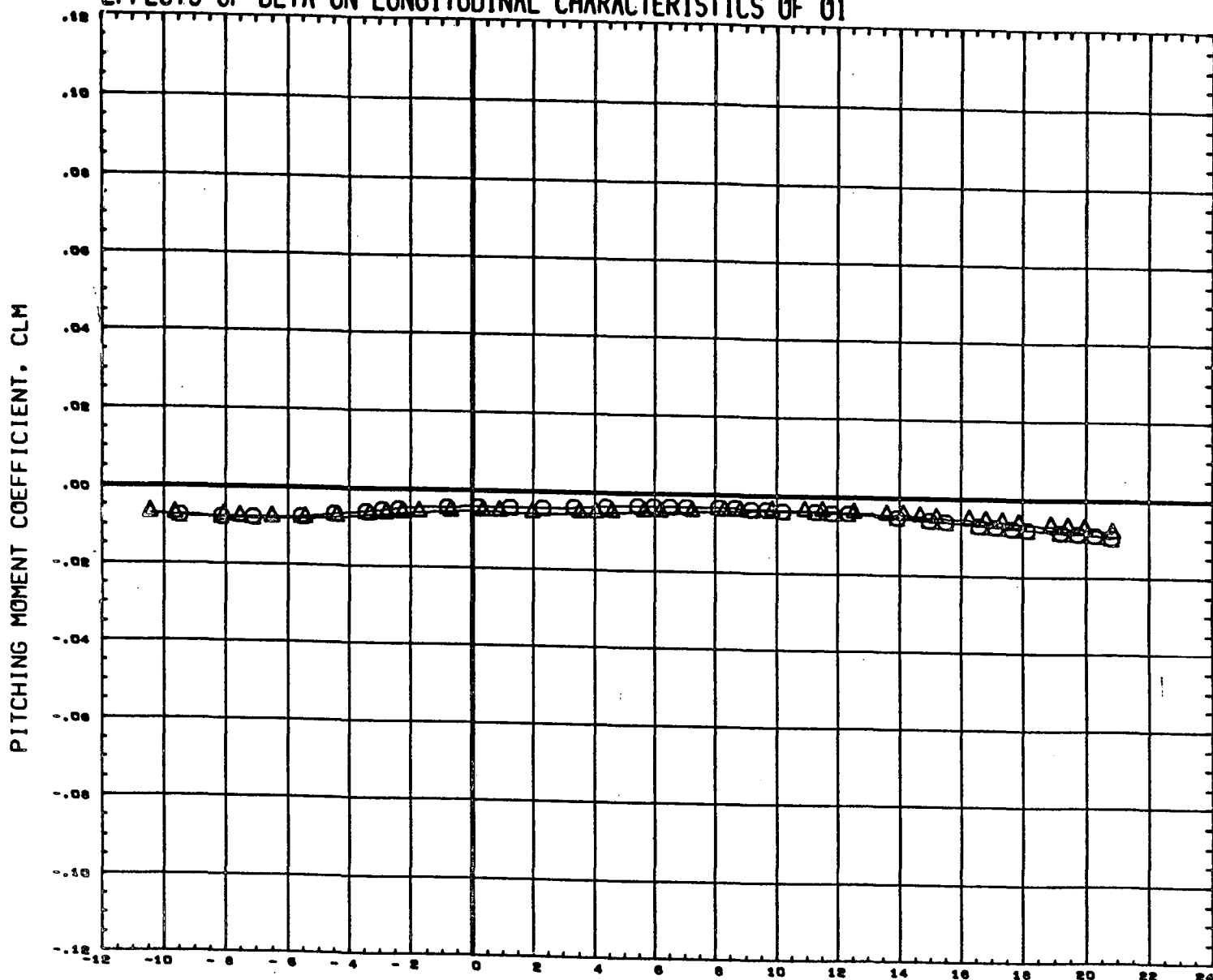
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE 01
(CD7702)	MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF 609.5004 IN.
				BREF 862.0004 IN.
				XMRP 1066.0040 IN.
				YMRP 0.0000 IN.
				ZMRP 404.0004 IN.
				SCALE 0.0060

MACH 2.20

PAGE 23

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

ANGLE OF ATTACK, ALPHA, DEGREES

BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

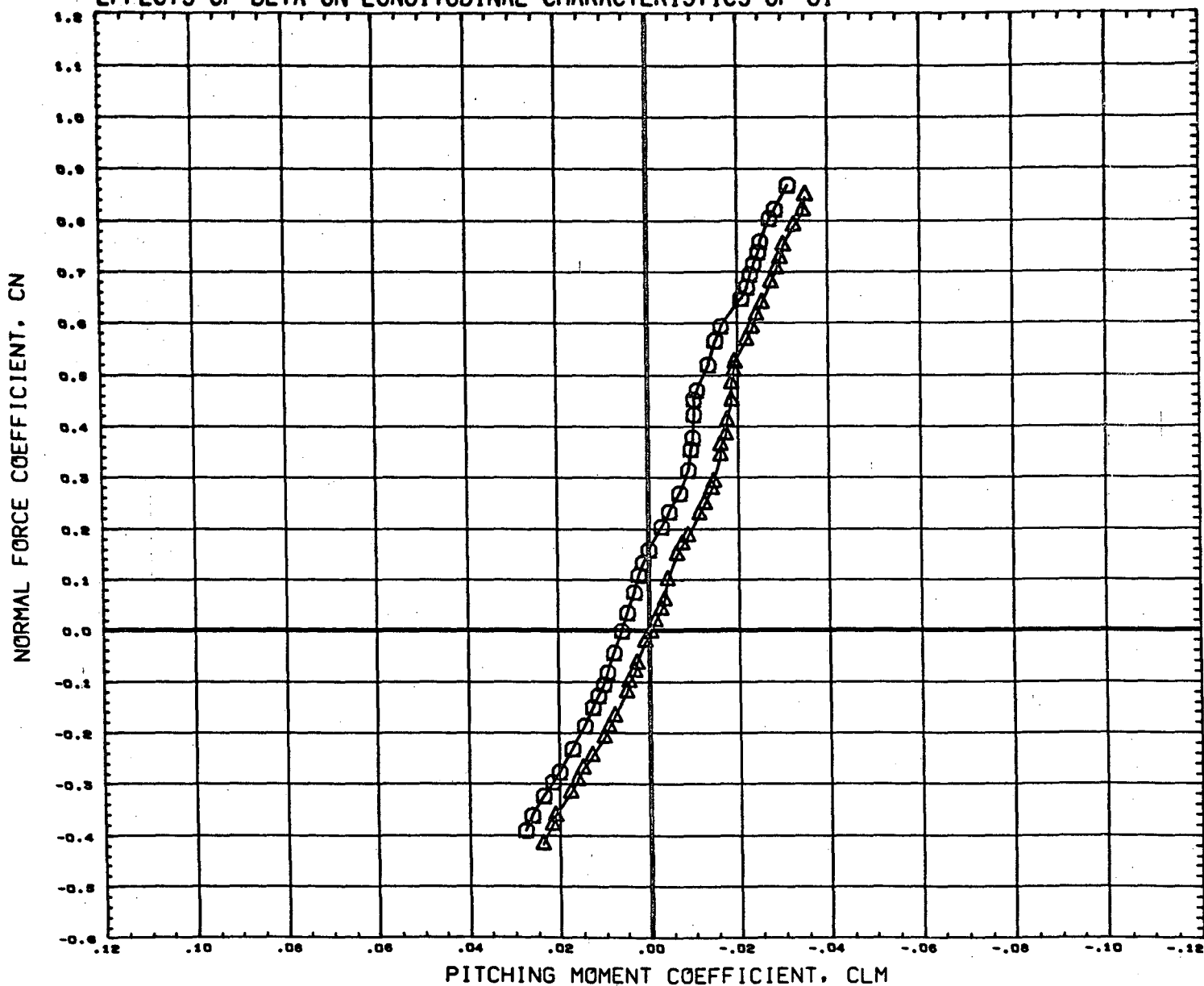
REFERENCE INFORMATION		
SREF	3195.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	1068.0040	IN.
YMRF	0.0000	IN.
ZMRF	404.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 24

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

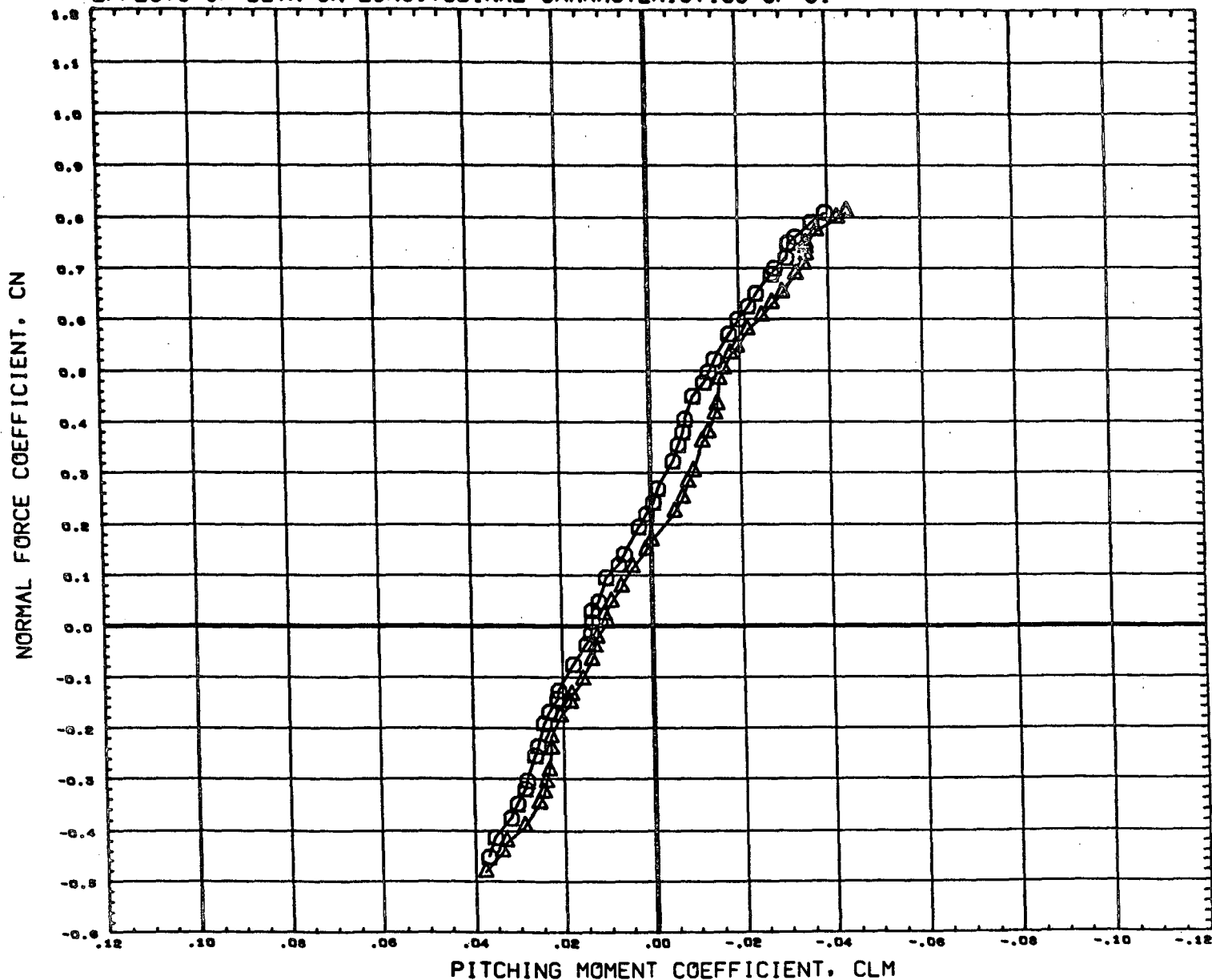
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .56

PAGE 25

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



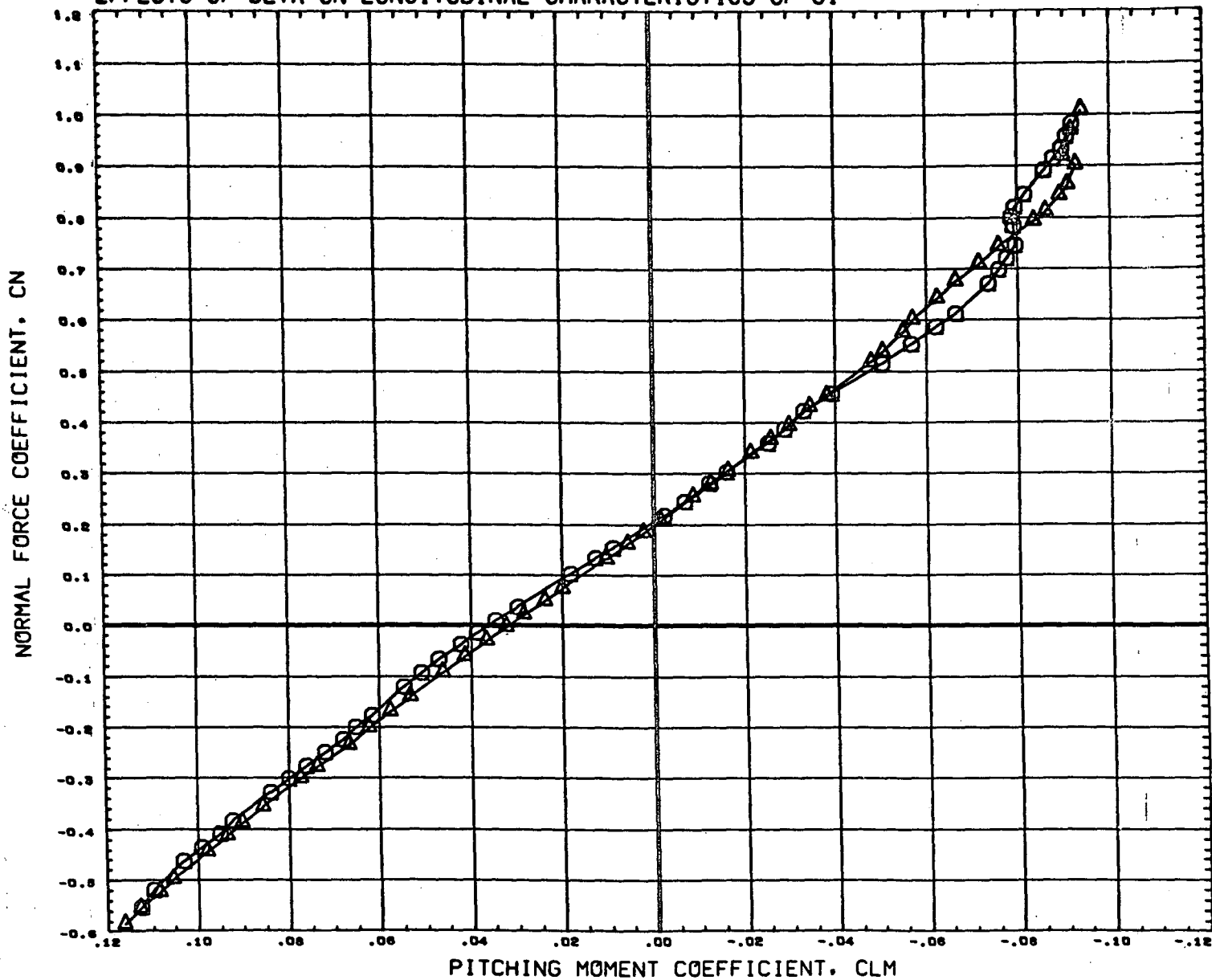
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) ○ MDAC S-222 ORBITER ALONE O1
(CD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 26

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

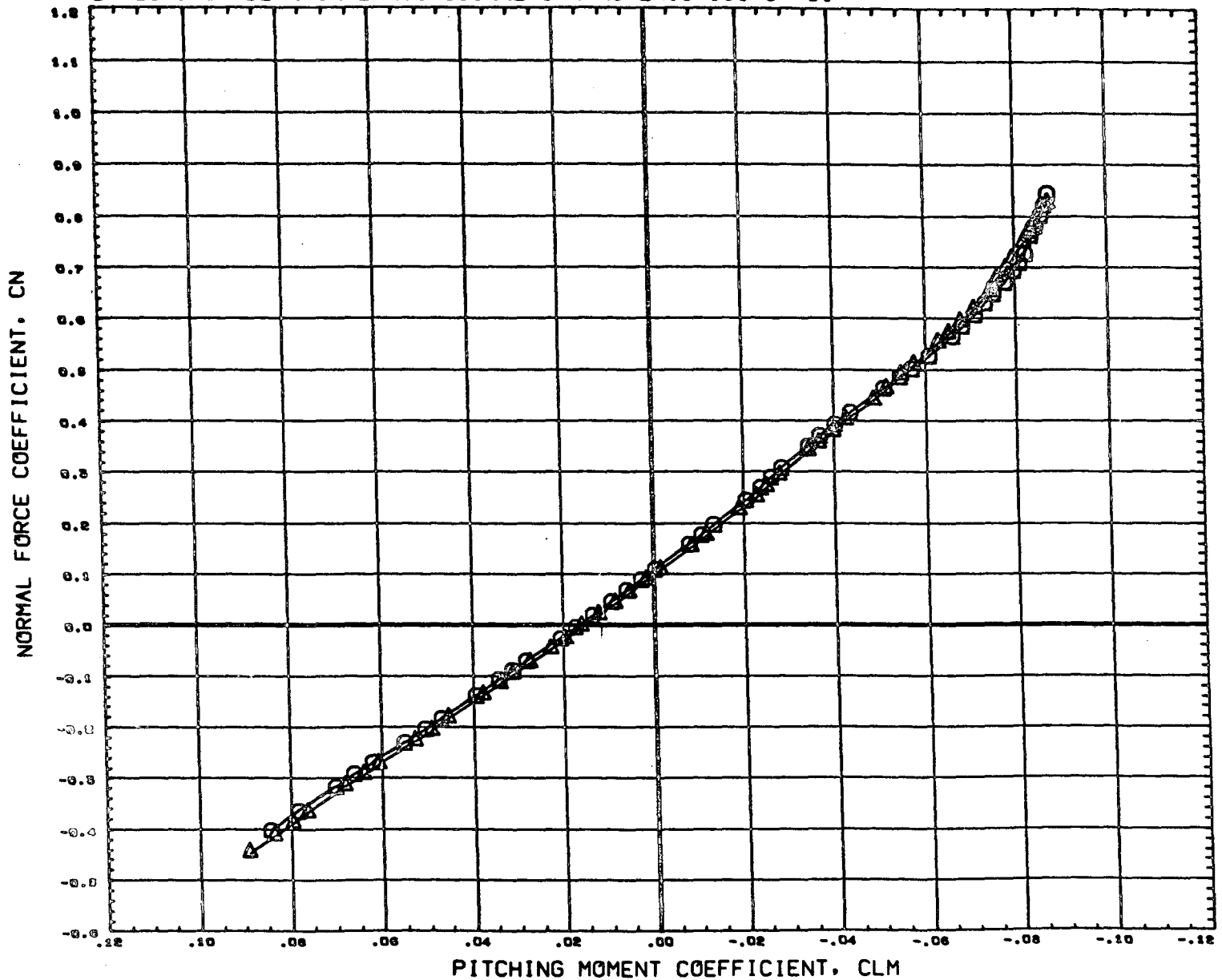
MACH

1.07

PAGE

27

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

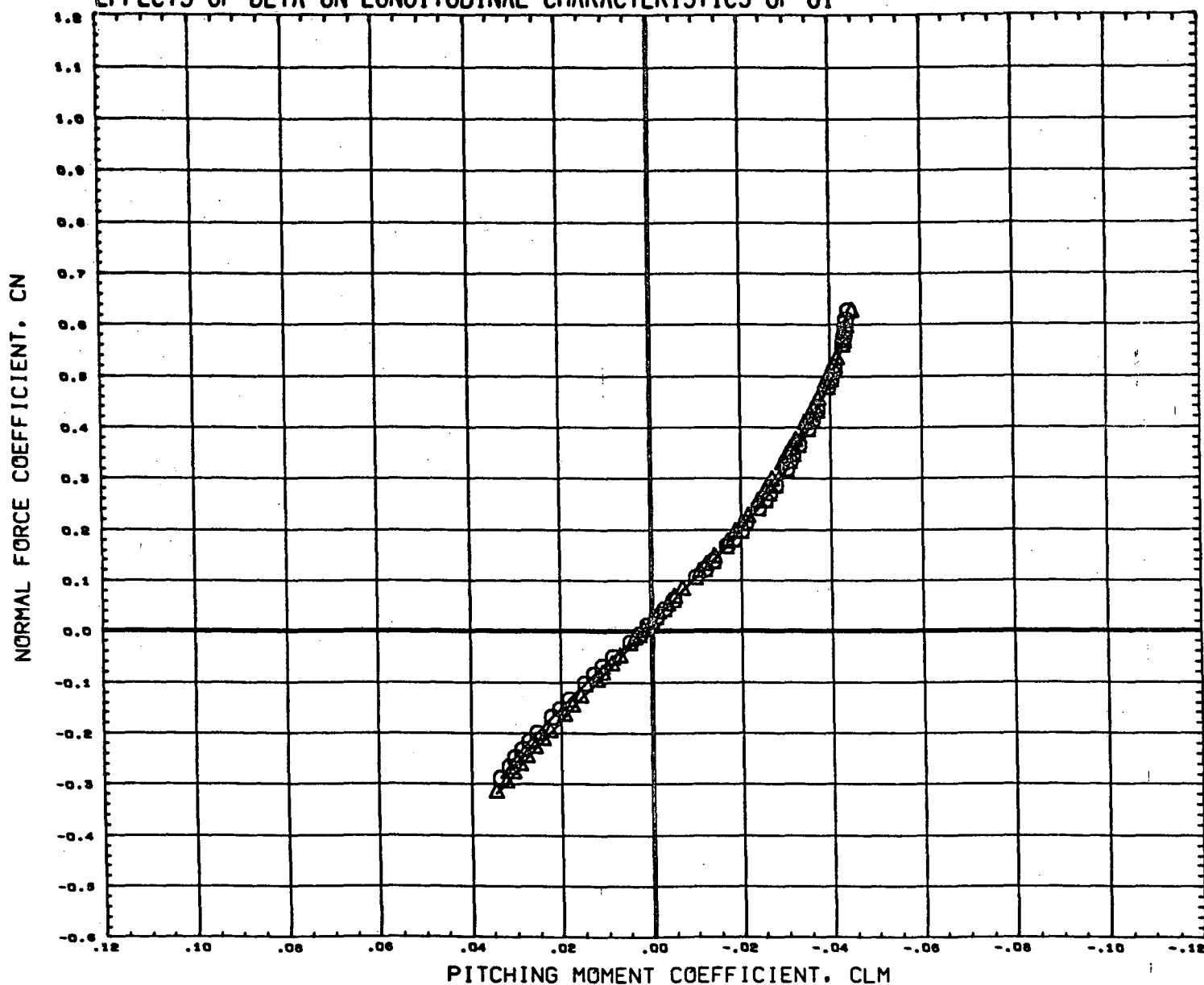
MACH



1.51

PAGE

28

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



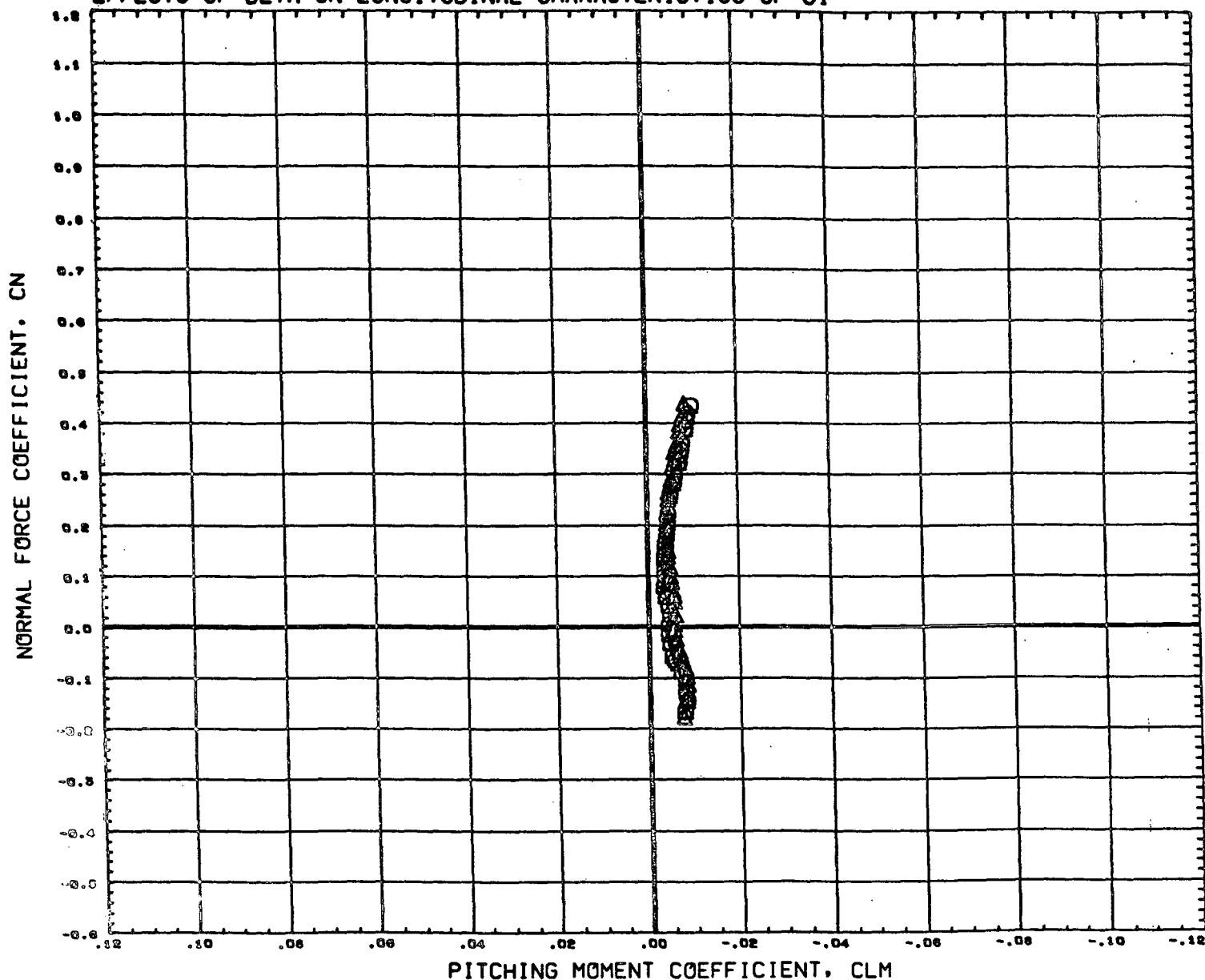
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701)  MDAC S-222 ORBITER ALONE 01
 (CD7702)  MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	662.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 2.20

PAGE 29

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



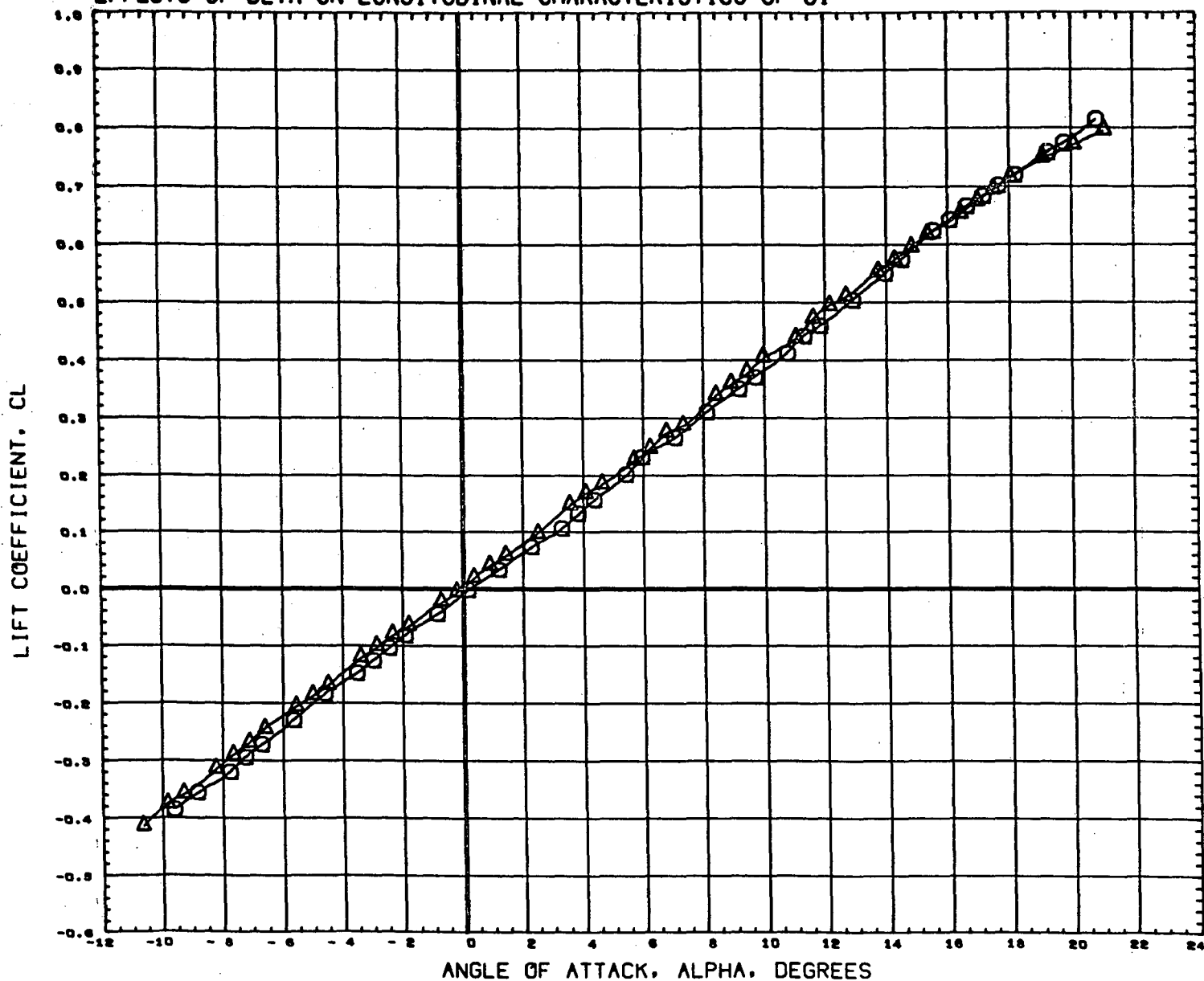
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) Q MDAC 8-222 ORBITER ALONE O1
 (CD7702) A MDAC 8-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	682.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

PAGE 30

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



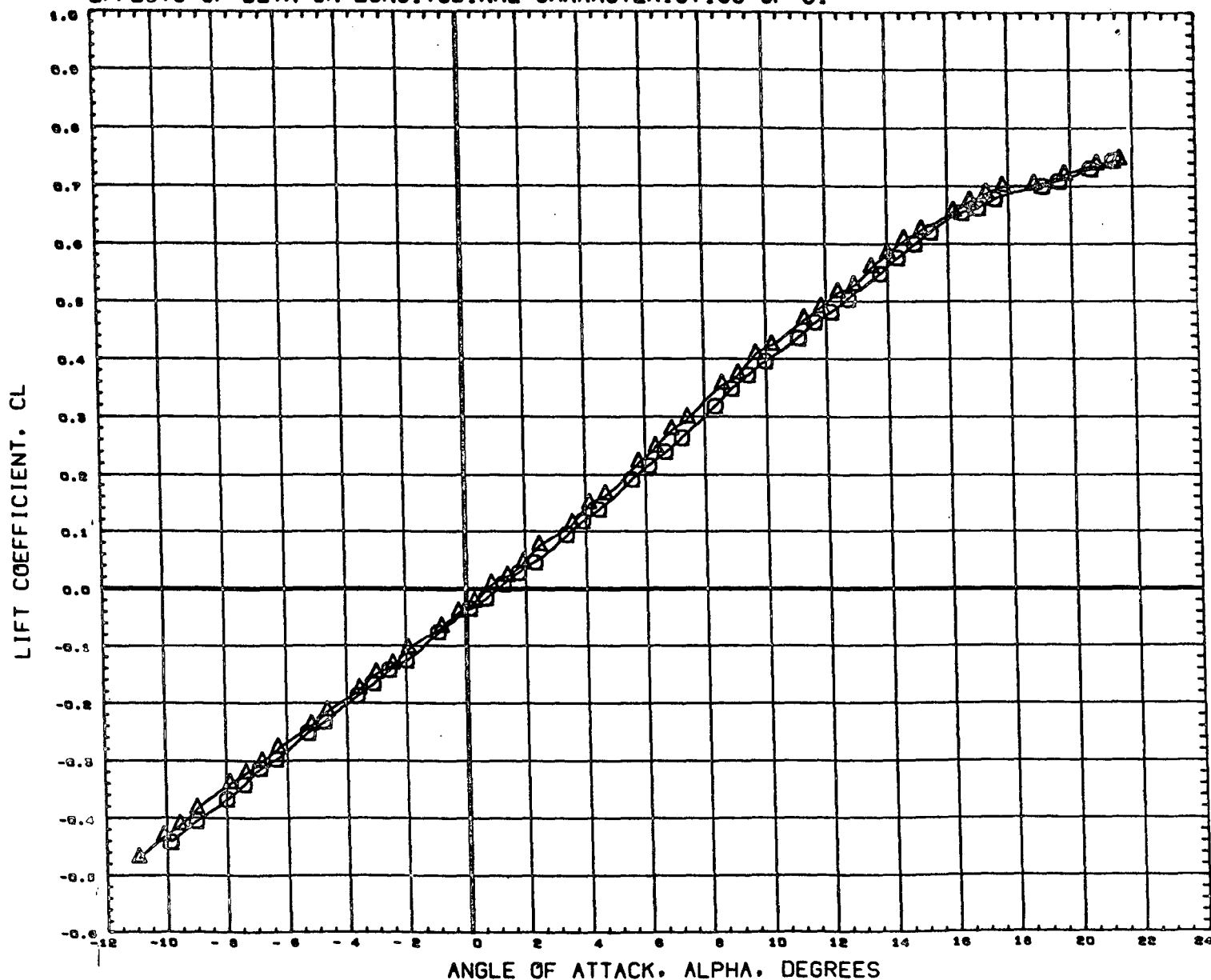
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 31

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



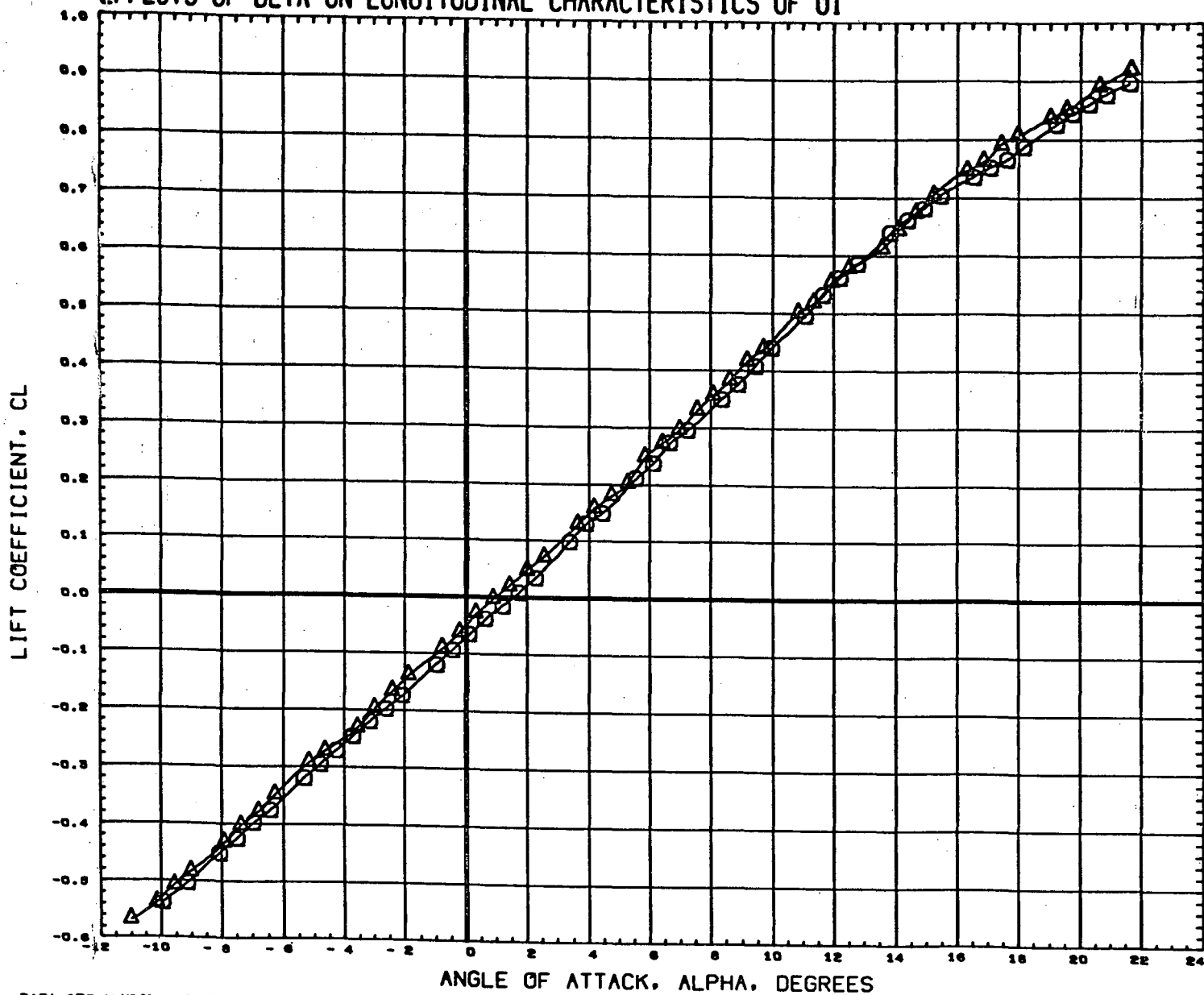
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH .89

PAGE 32

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



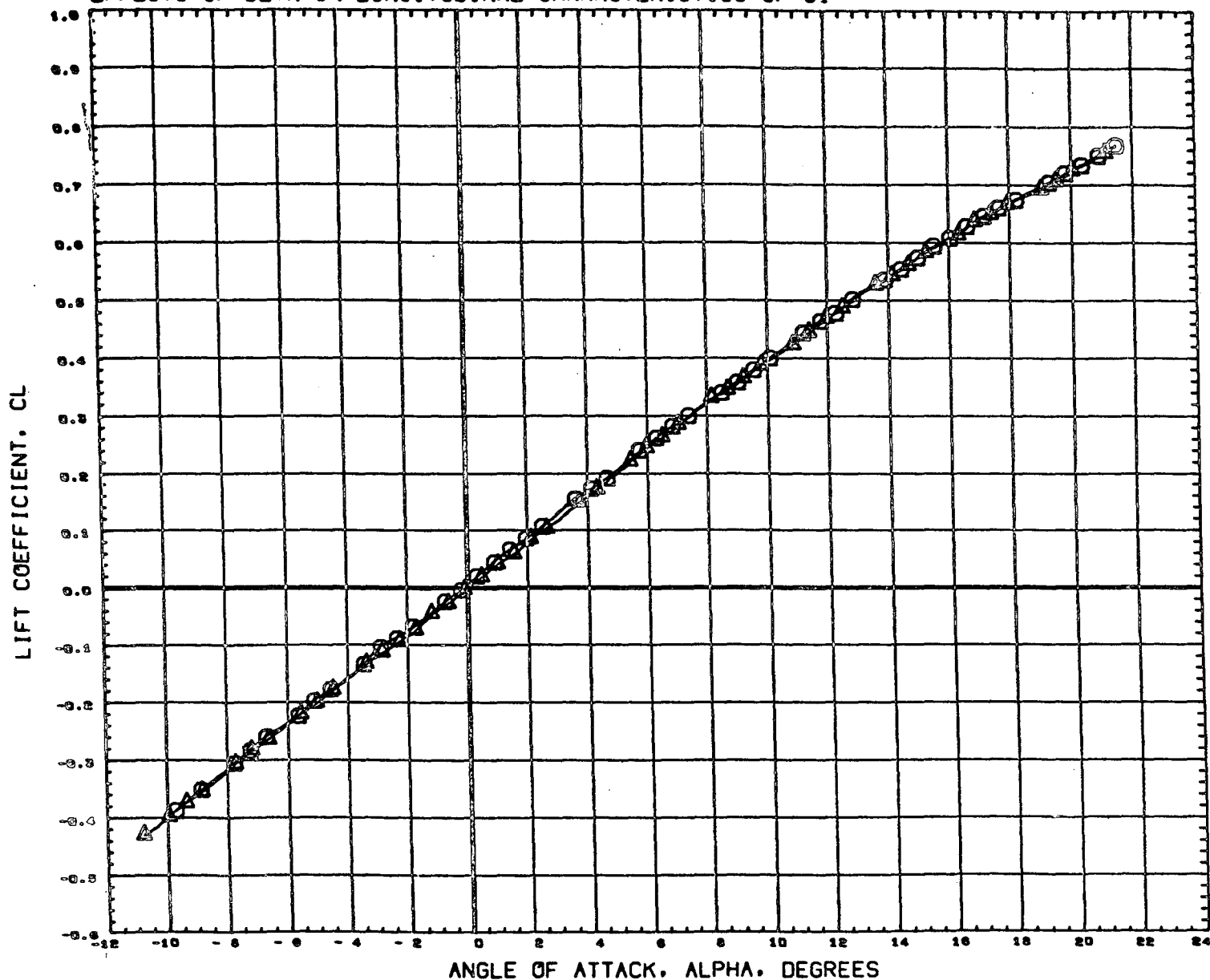
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) ○ MDAC S-222 ORBITER ALONE O1
(CD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 33

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



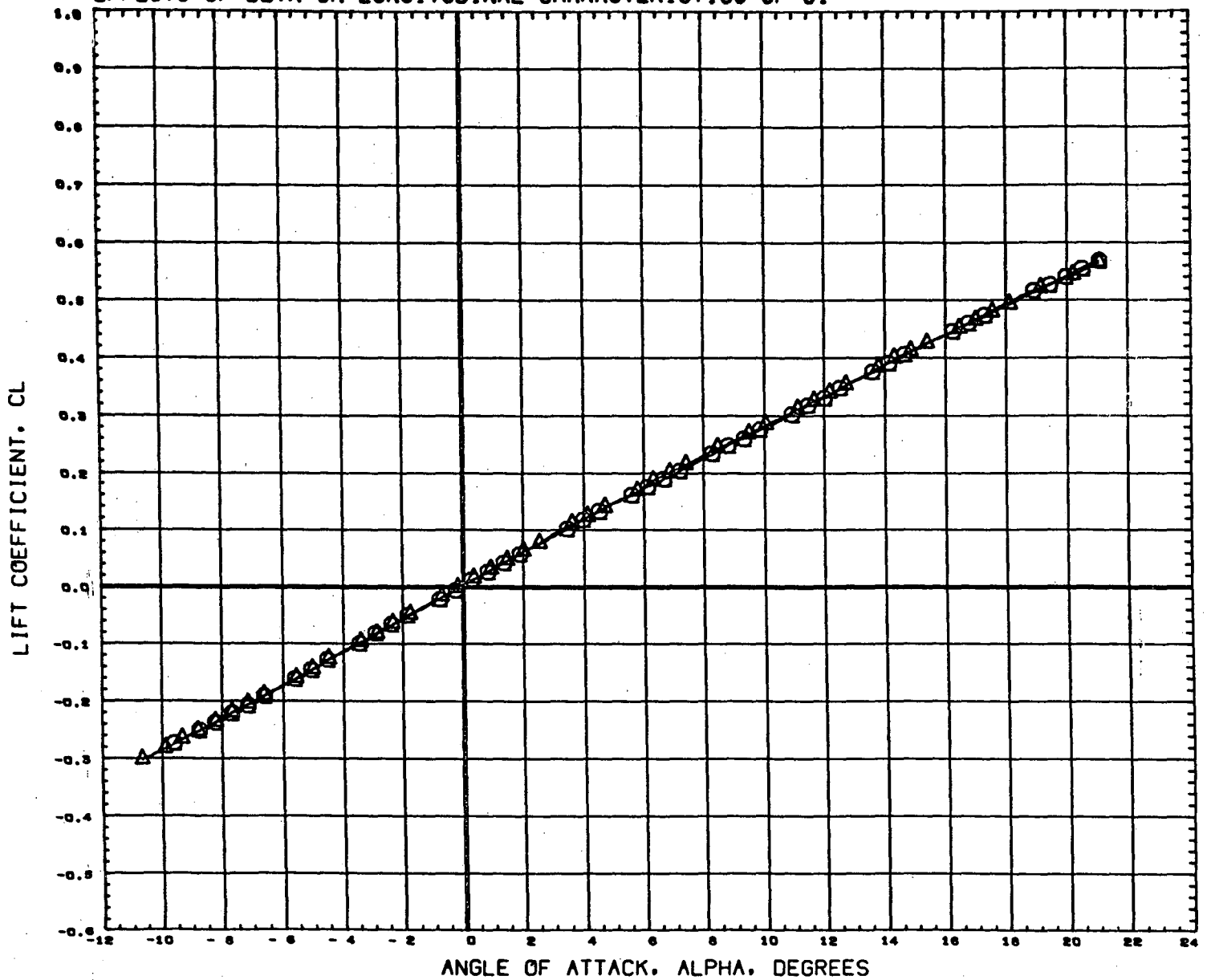
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) \bigcirc MDAC S-222 ORBITER ALONE O1
 (CD7702) \triangle MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	882.0004 IN.
				XMRF	1066.0040 IN.
				YMRF	0.0000 IN.
				ZMRF	404.0004 IN.
				SCALE	0.0060

MACH 1.51

PAGE 34

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



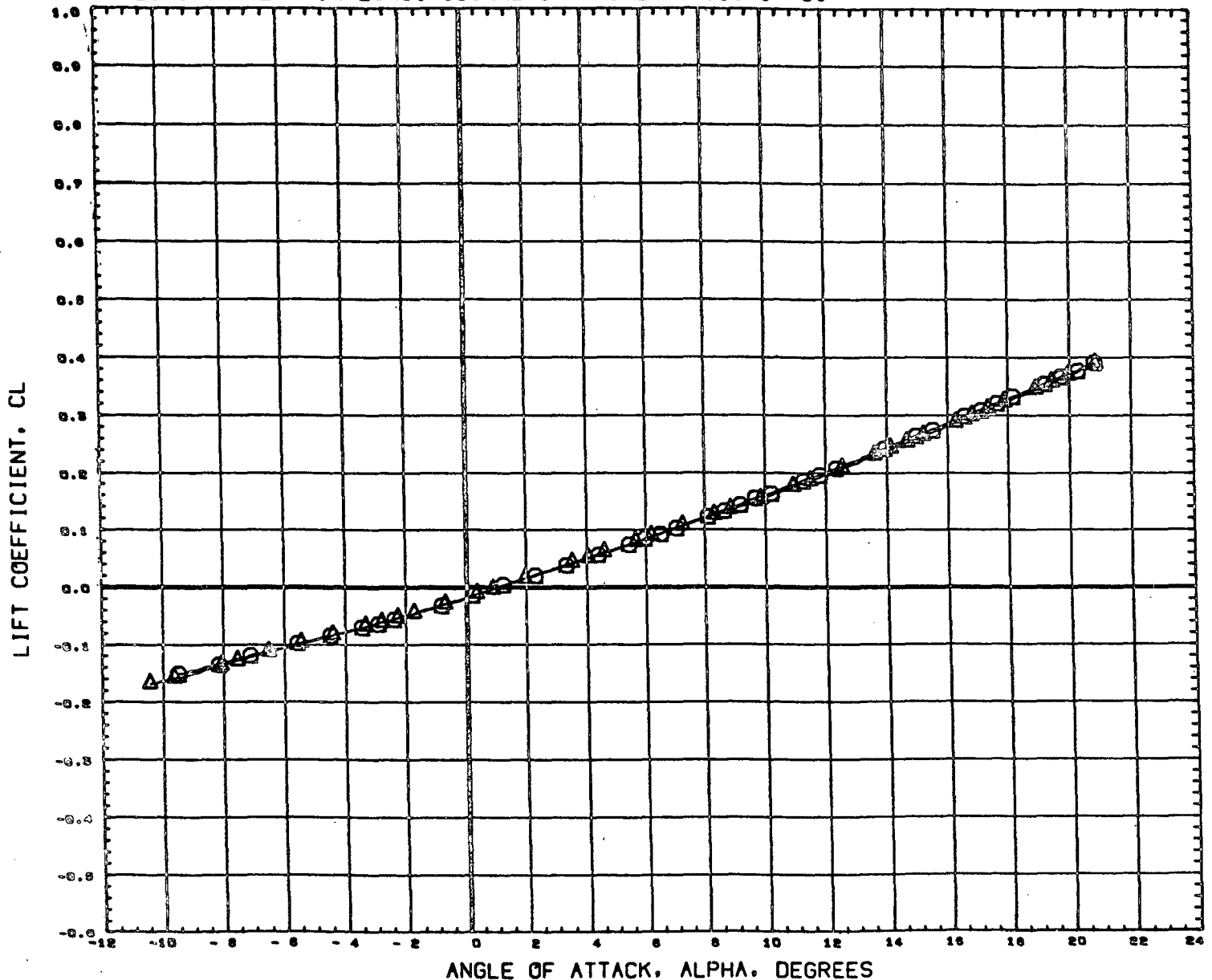
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE O1
(CD7702) MDAC S-222 ORBITER ALONE O1



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				SREF	882.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 2.20

PAGE 35

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701)  MDAC S-222 ORBITER ALONE 01
(CD7702)  MDAC S-222 ORBITER ALONE 01

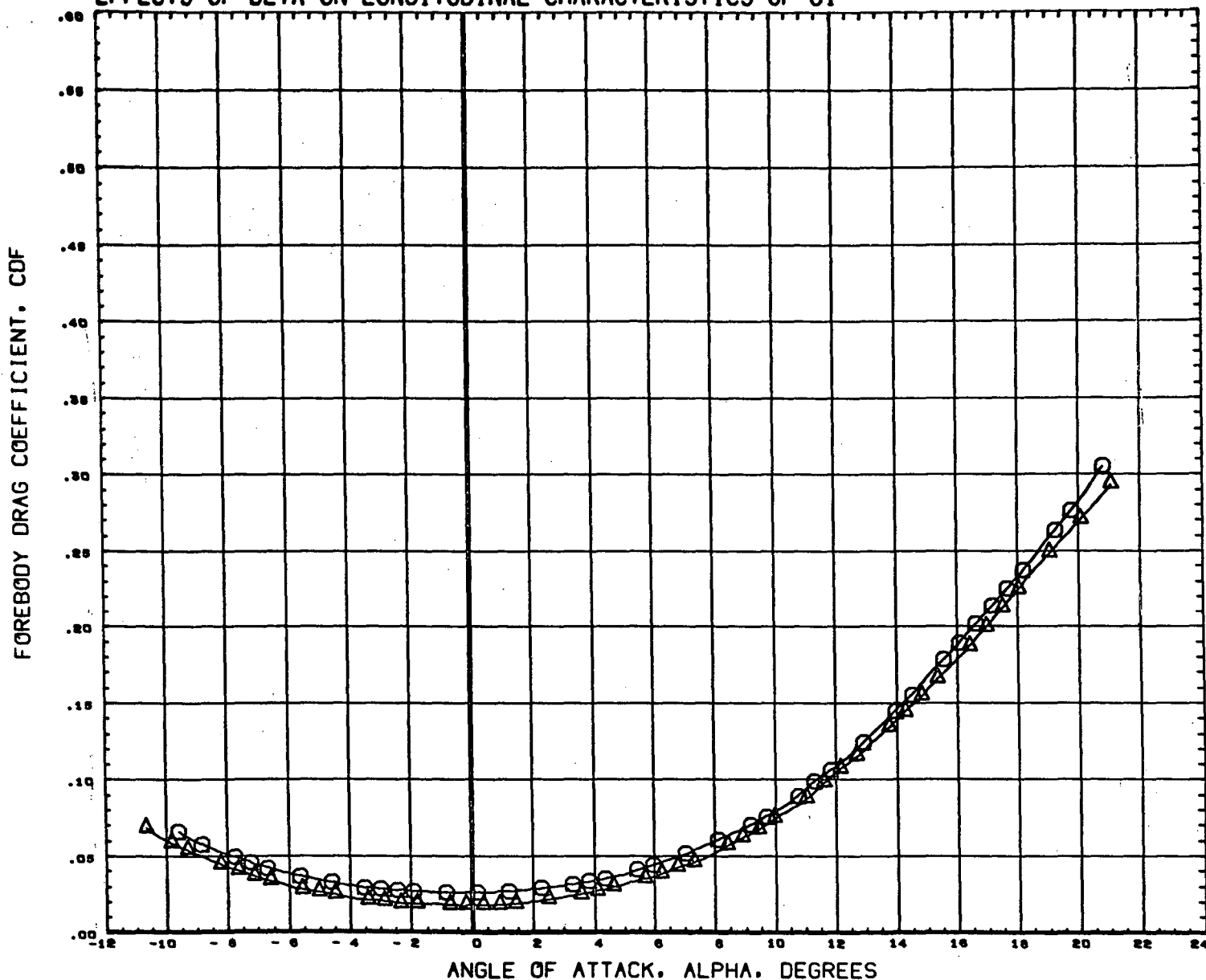
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	sq.ft.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0080	

MACH 4.47

PAGE 36

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



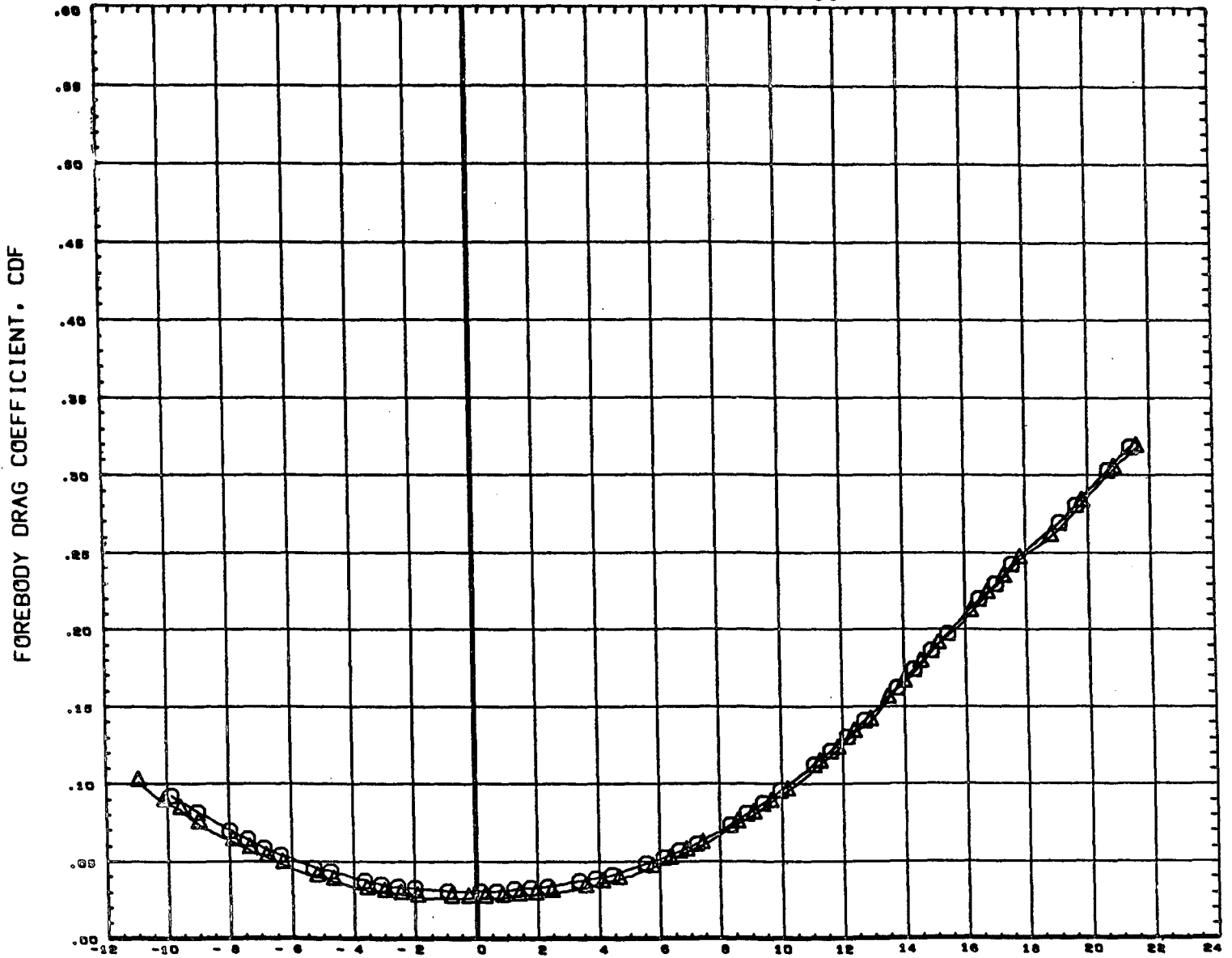
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE 01
 (CD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 37

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE 01
(CD7702) MDAC S-222 ORBITER ALONE 01

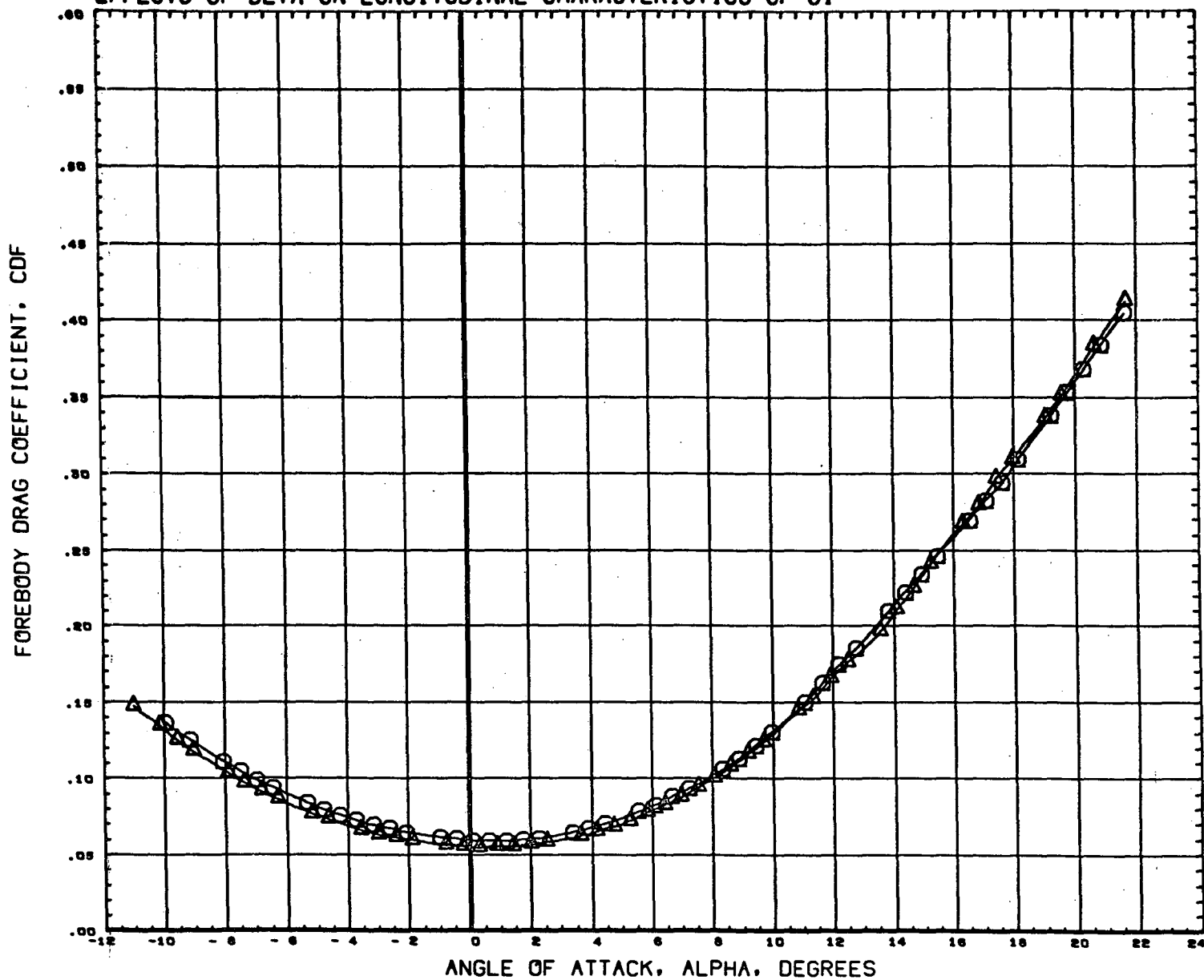
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 662.0004 IN.
XMRP 1066.0004 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 38

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE 01
 (CD7702) MDAC S-222 ORBITER ALONE 01

BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

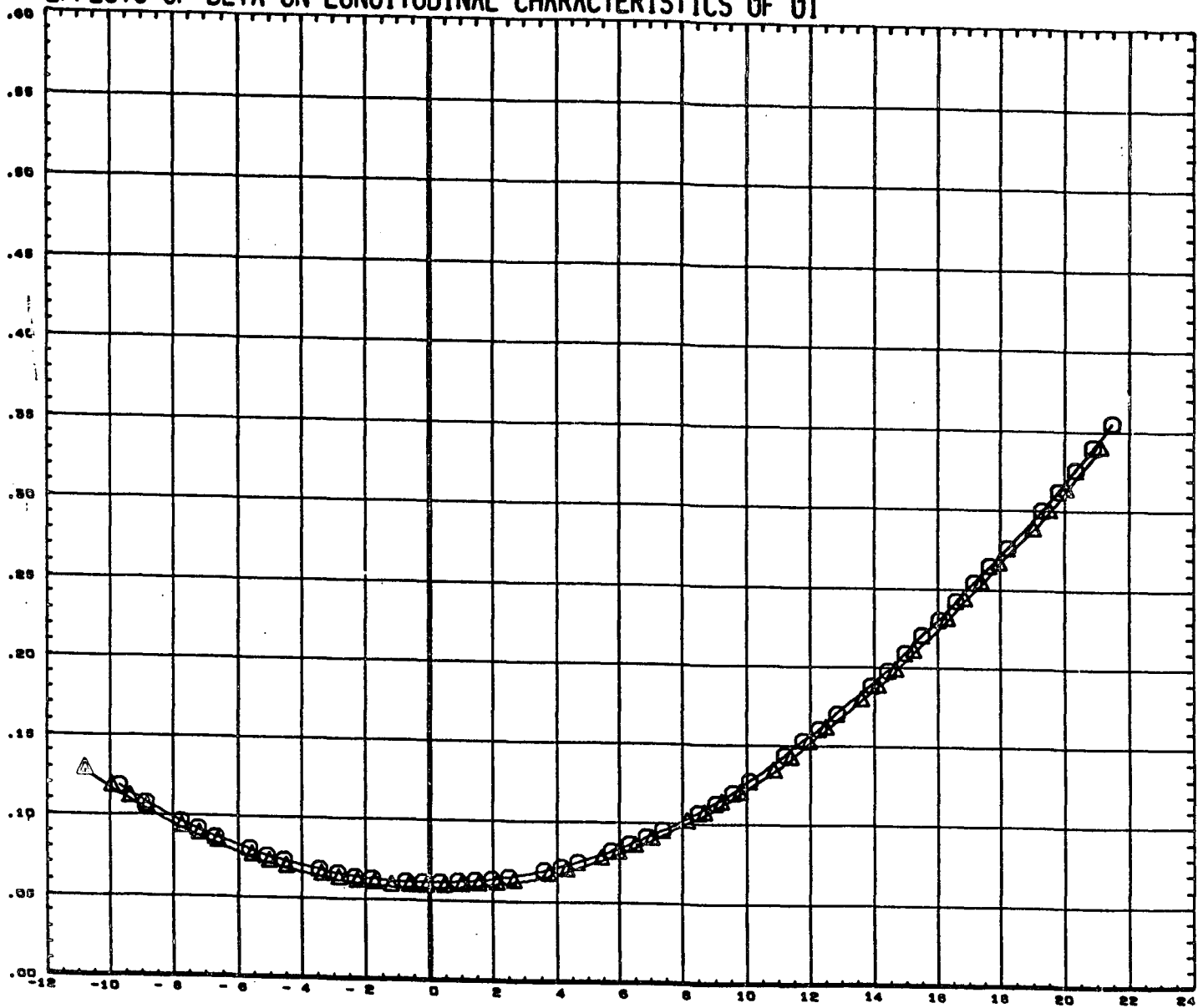
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.3004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0080

MACH 1.07

PAGE 39

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01

FOREBODY DRAG COEFFICIENT, CDF



ANGLE OF ATTACK, ALPHA, DEGREES

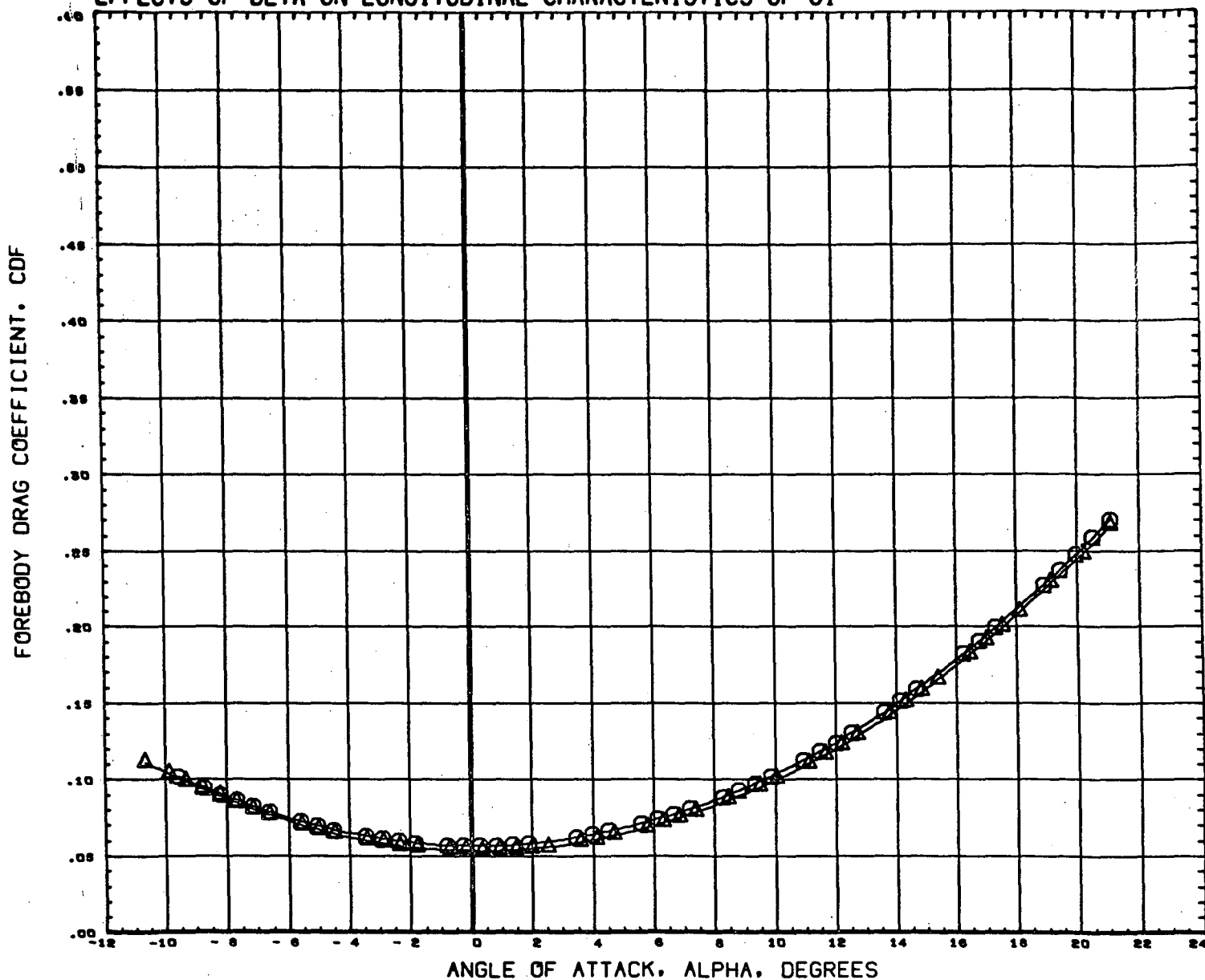
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE 01
 (CD7702) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0000

MACH 1.51

PAGE 40

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

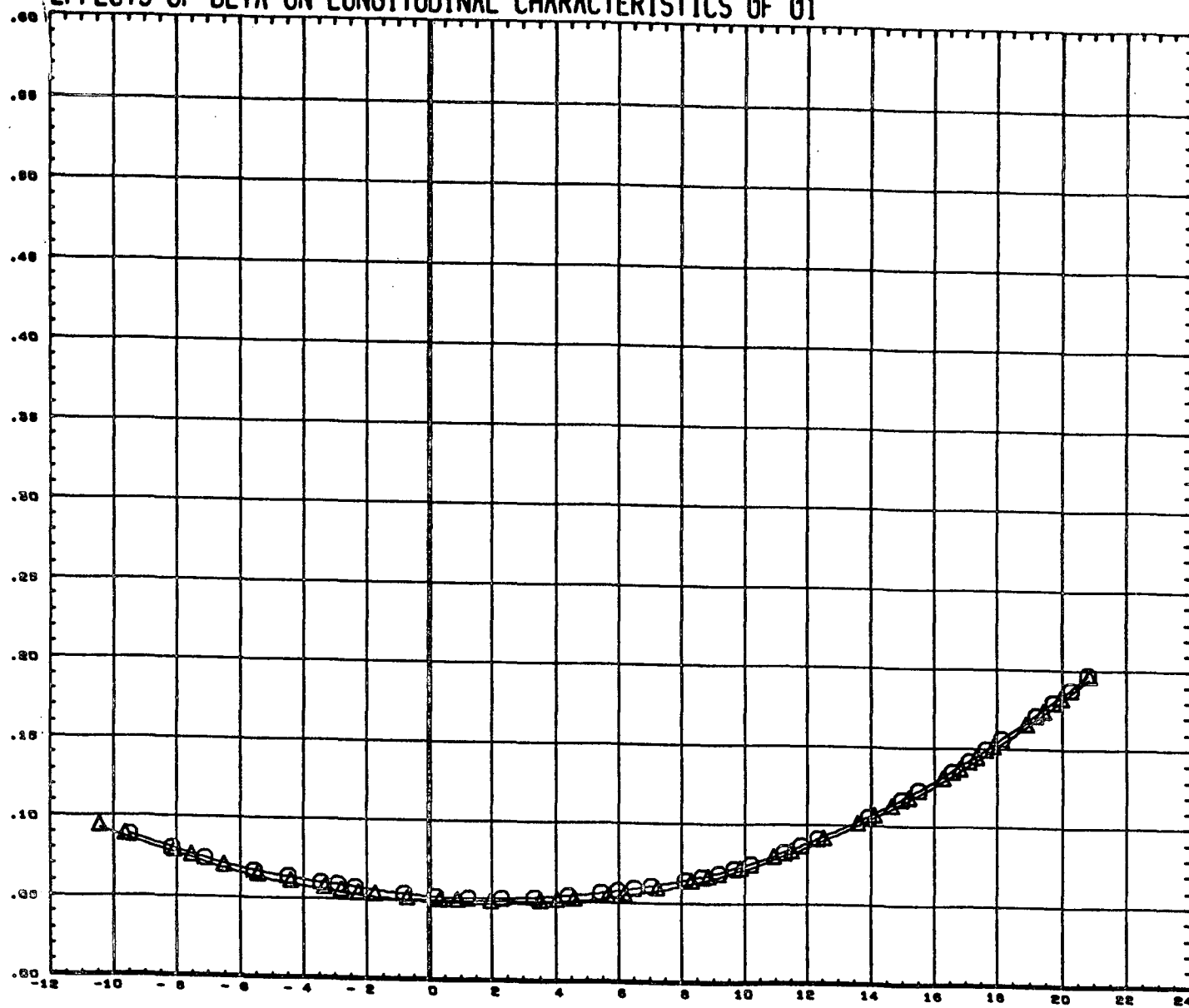
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	662.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 41

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01

FOREBODY DRAG COEFFICIENT, CDF



ANGLE OF ATTACK, ALPHA, DEGREES

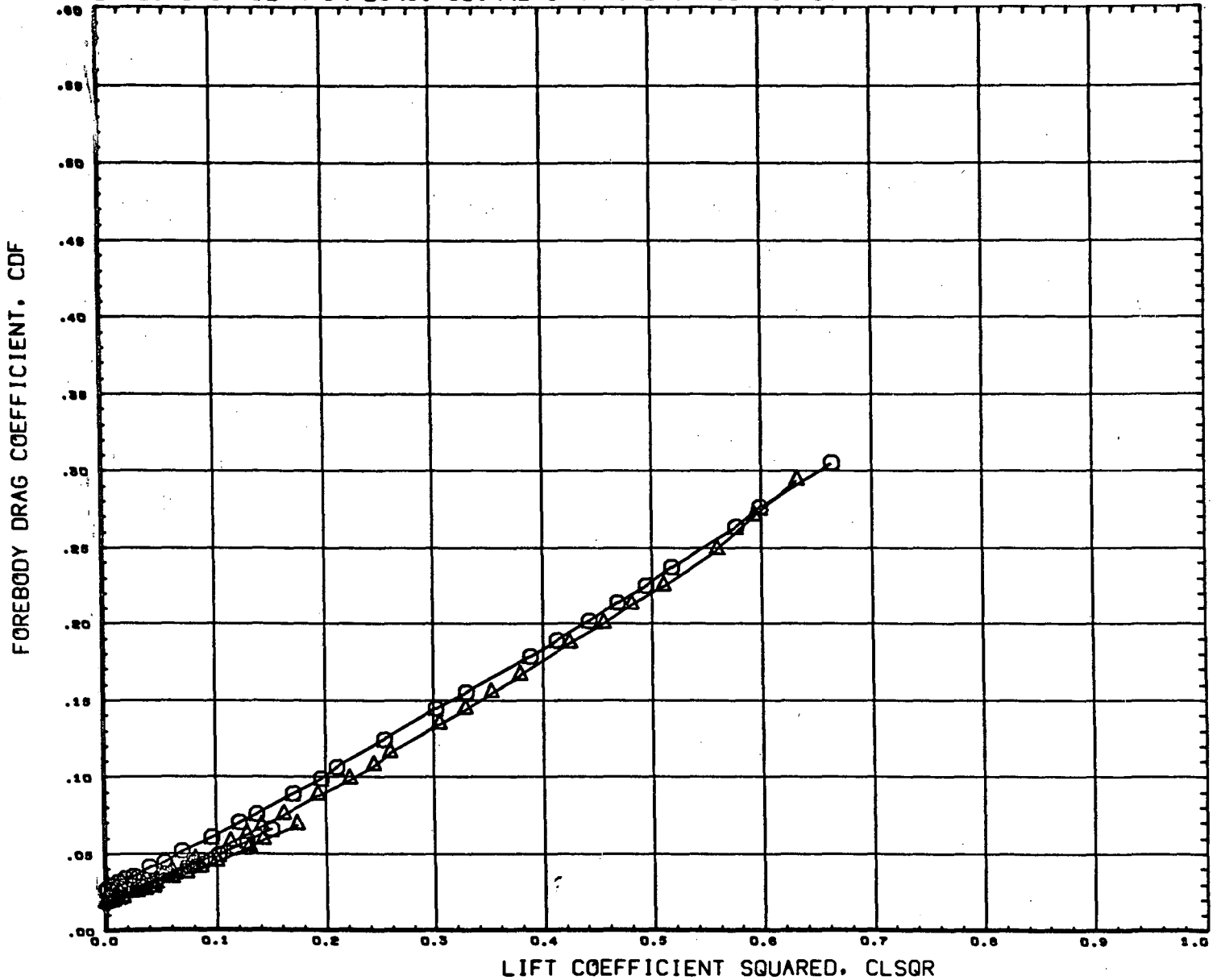
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE 01
 (CD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

PAGE 42

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



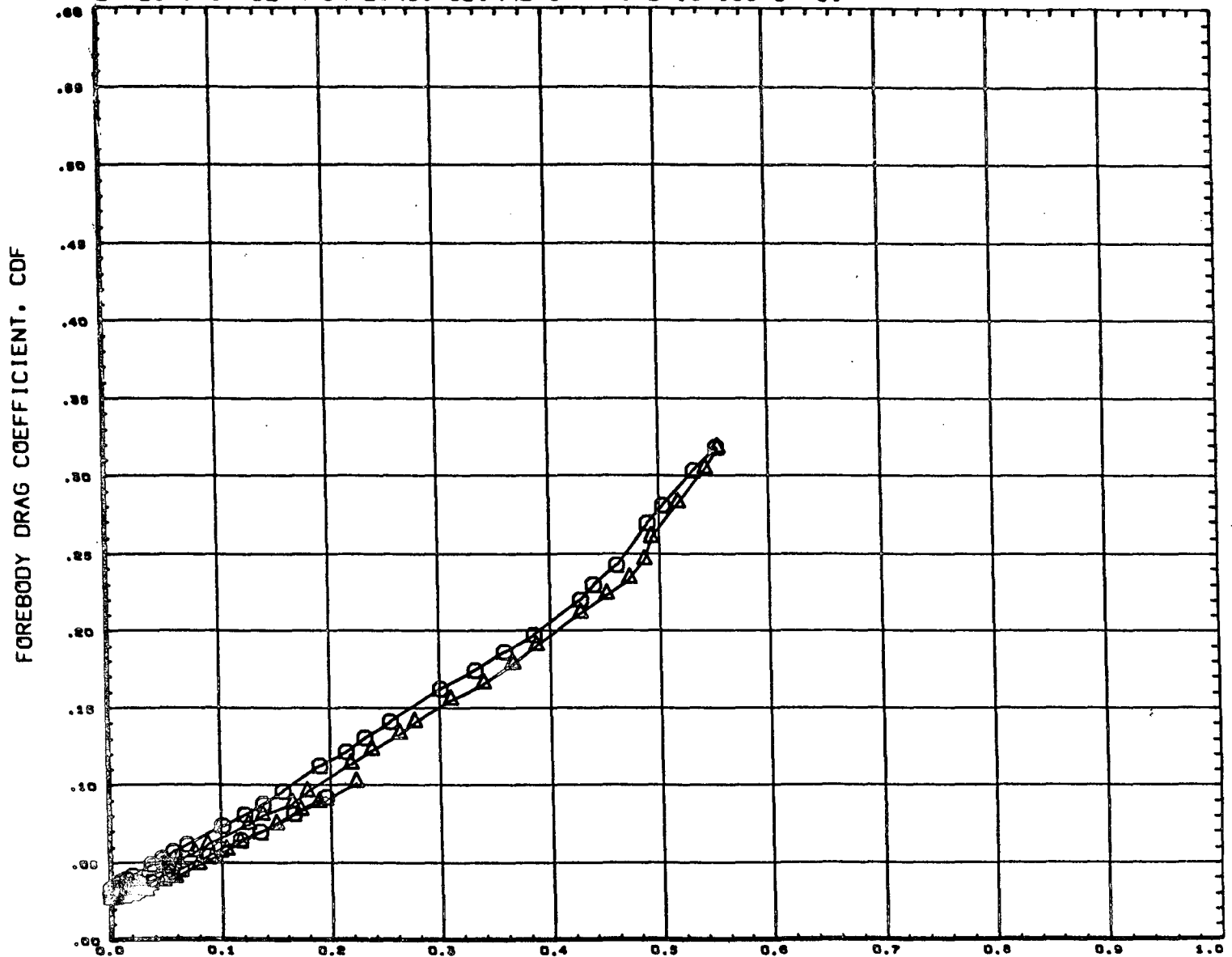
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	○	MDAC S-222 ORBITER ALONE O1
(CD7702)	△	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				SREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 43

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE 01
(CD7702)	MDAC S-222 ORBITER ALONE 01

LIFT COEFFICIENT SQUARED, CLSQ

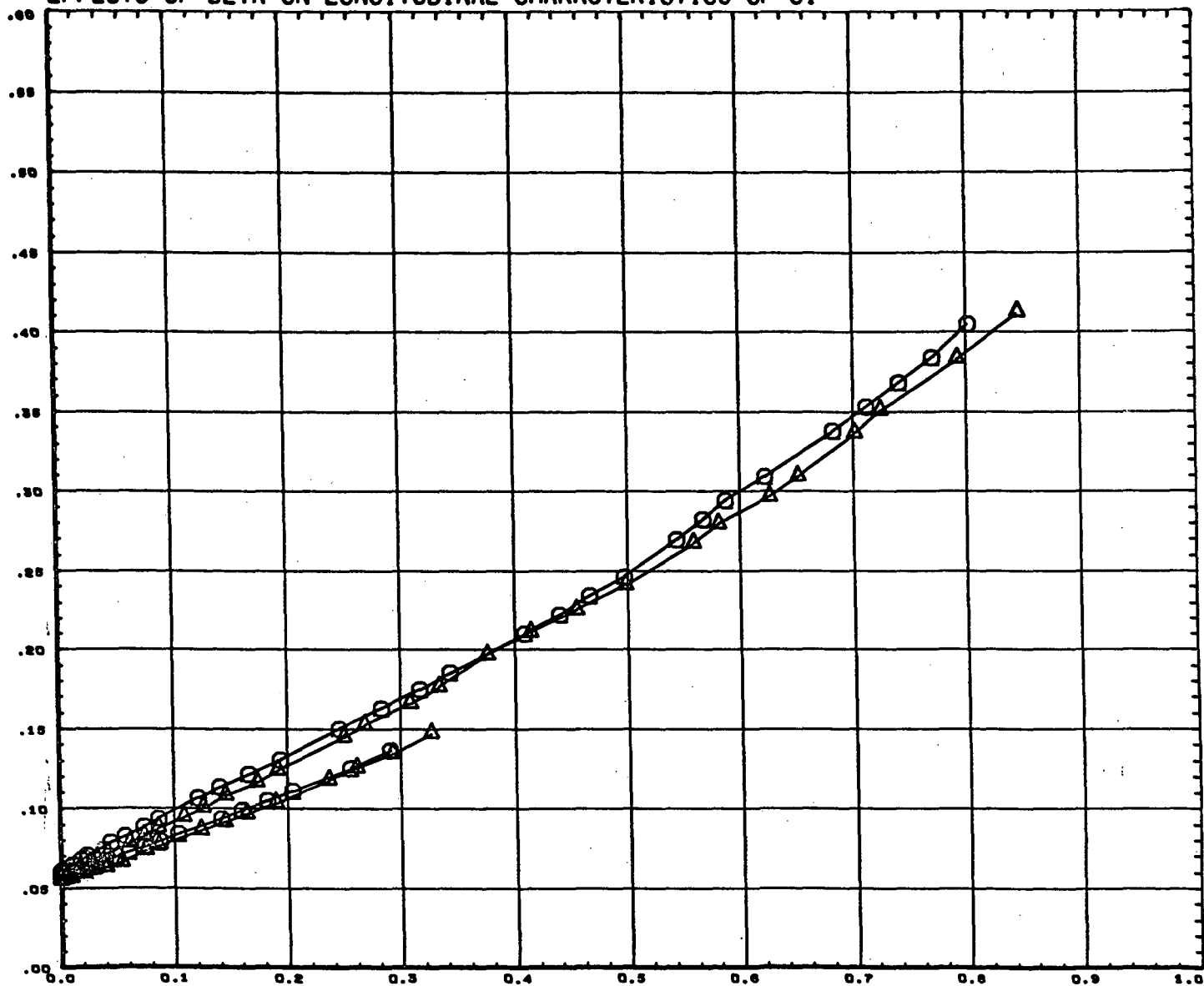
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	682.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 44

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQR

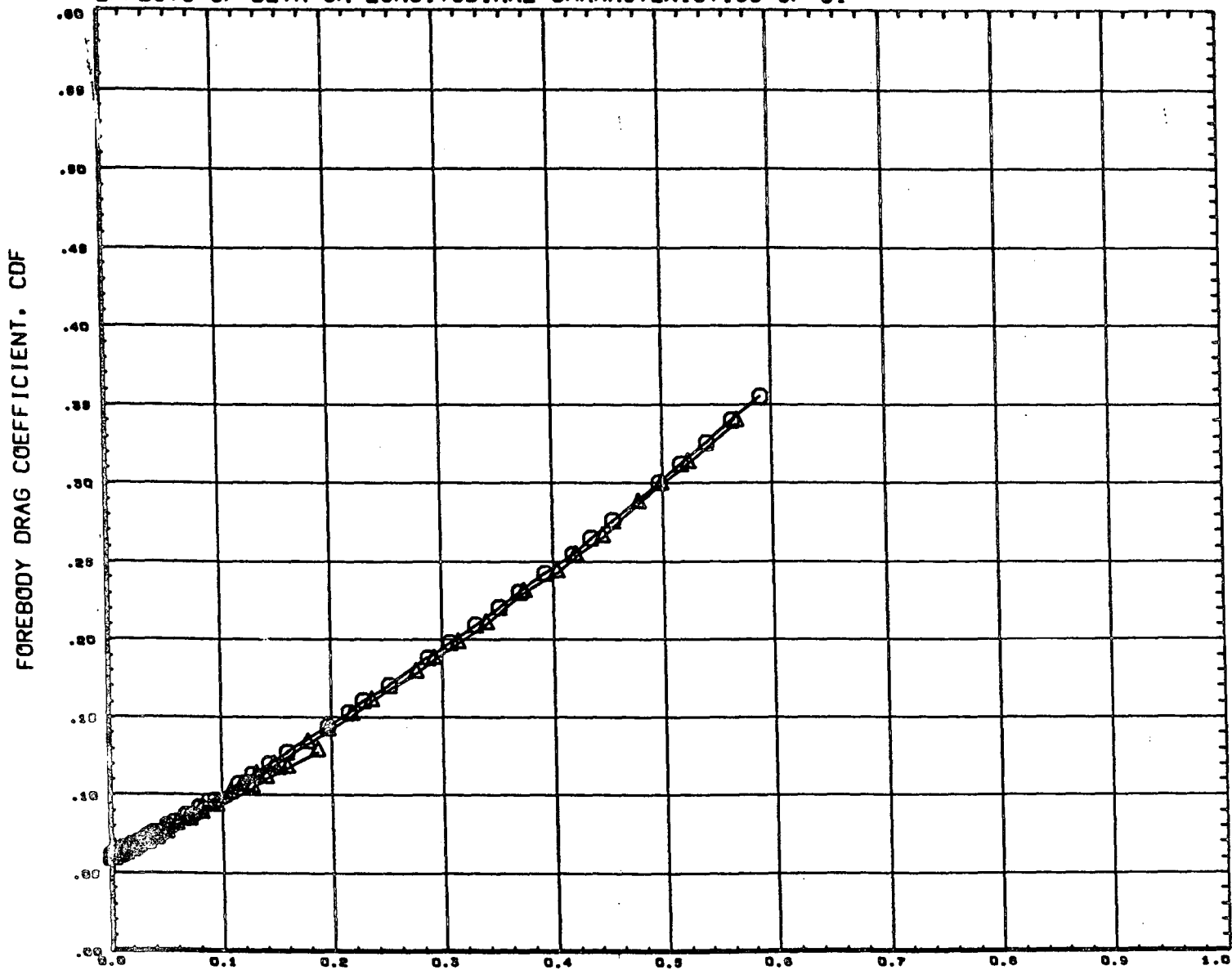
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701)	MDAC S-222 ORBITER ALONE O1
(CD7702)	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 45

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE 01
 (CD7702) MDAC S-222 ORBITER ALONE 01

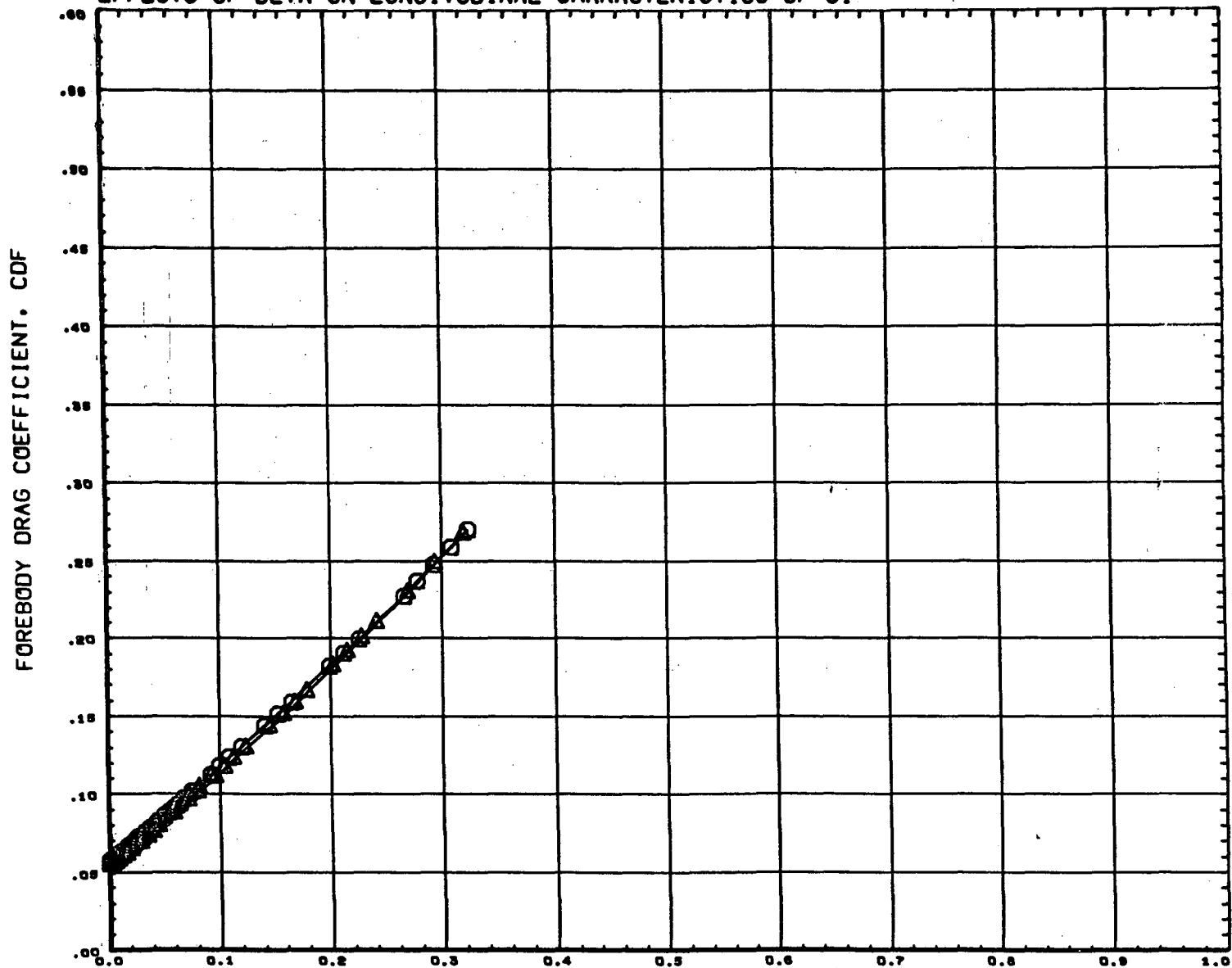
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREP	3155.3040	SQ.FT.
LREP	609.5004	IN.
BREP	682.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	



MACH 1.51

PAGE 46

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



LIFT COEFFICIENT SQUARED, CLSQR

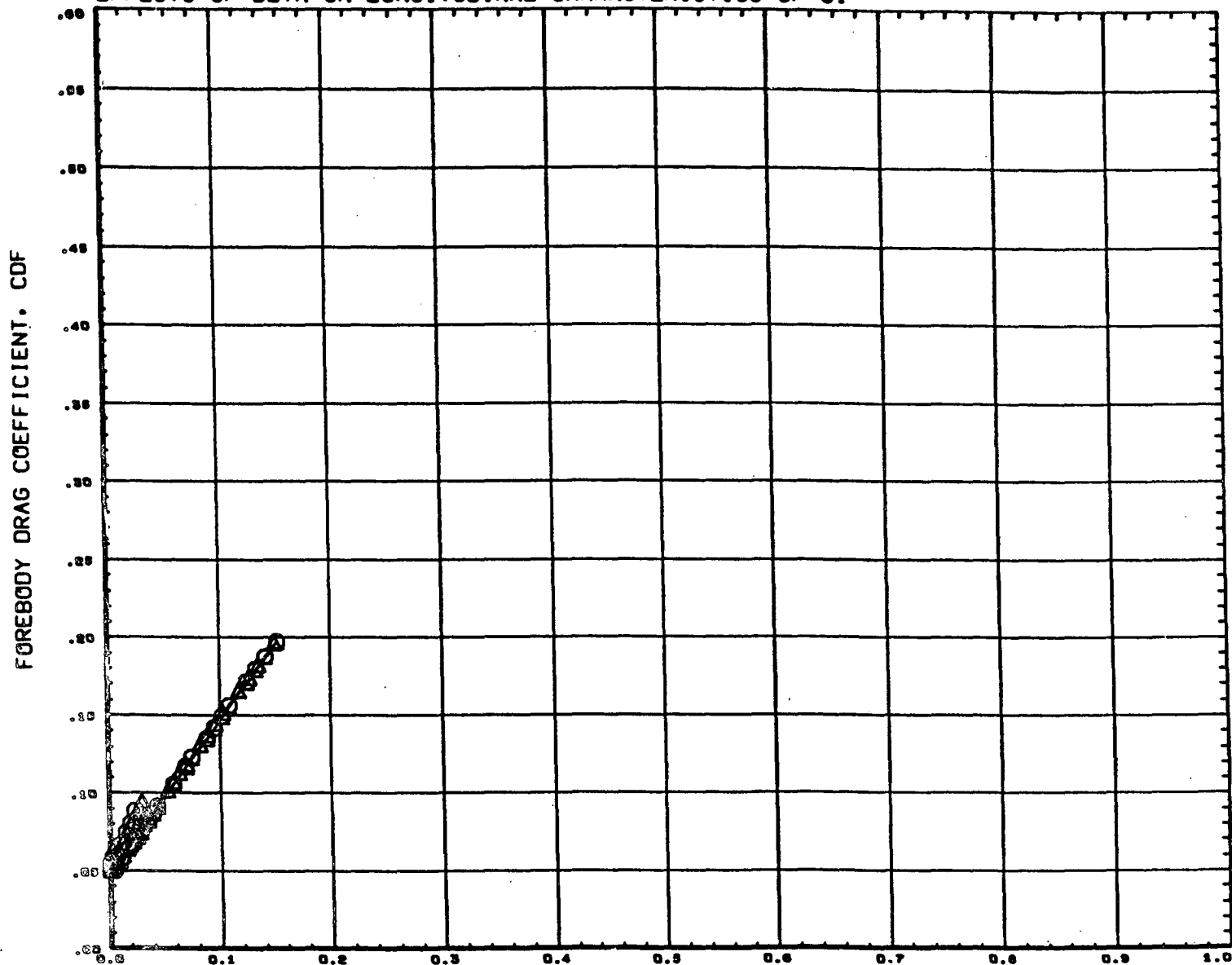
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701)  MDAC S-222 ORBITER ALONE 01
 (CD7702)  MDAC S-222 ORBITER ALONE 01



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	862.0004 IN.
				XHRP	1068.0040 IN.
				YHRP	0.0000 IN.
				ZHRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 47

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701)  MDAC S-222 ORBITER ALONE 01
 (CD7702)  MDAC S-222 ORBITER ALONE 01

LIFT COEFFICIENT SQUARED, CLSQR

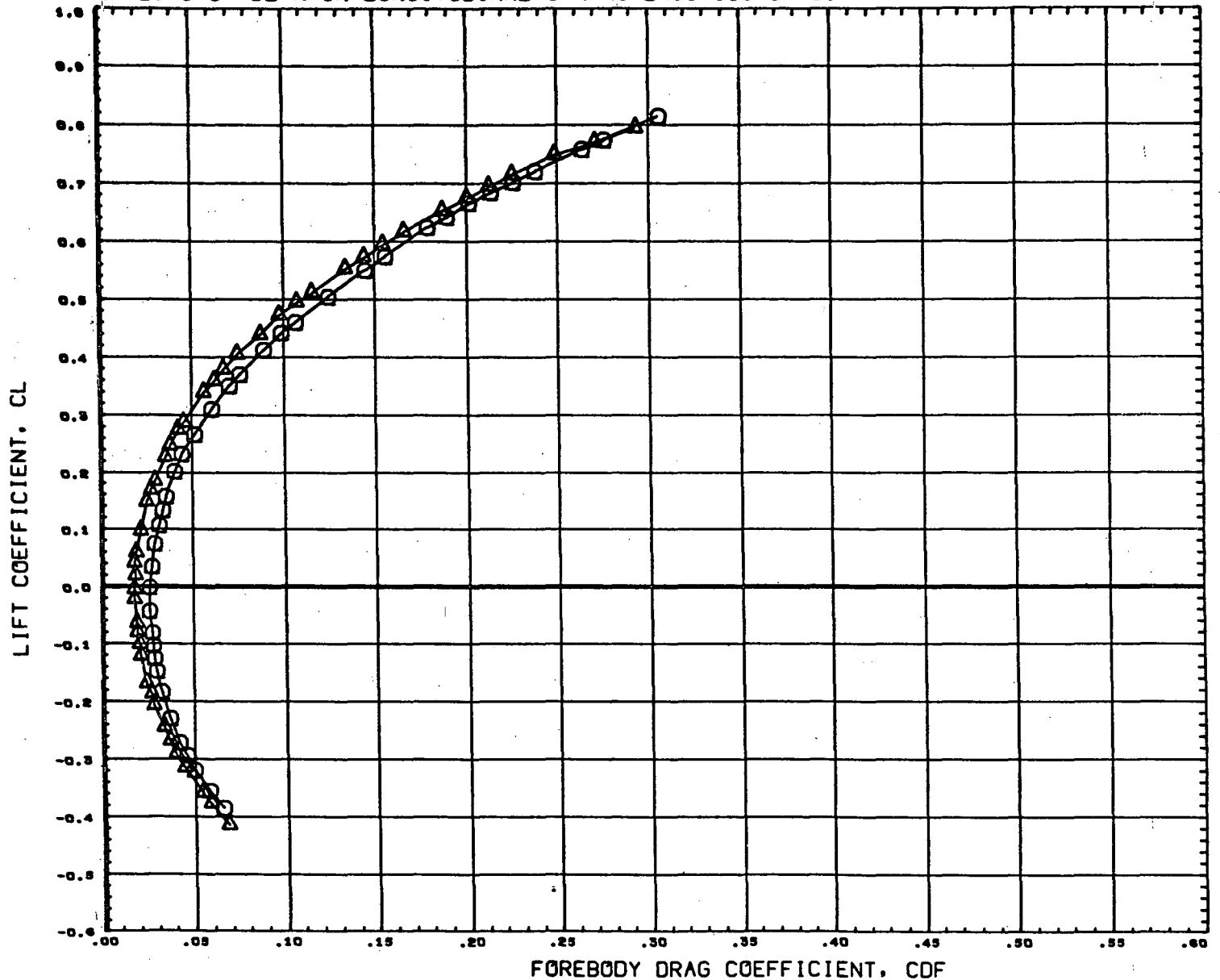
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 48

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



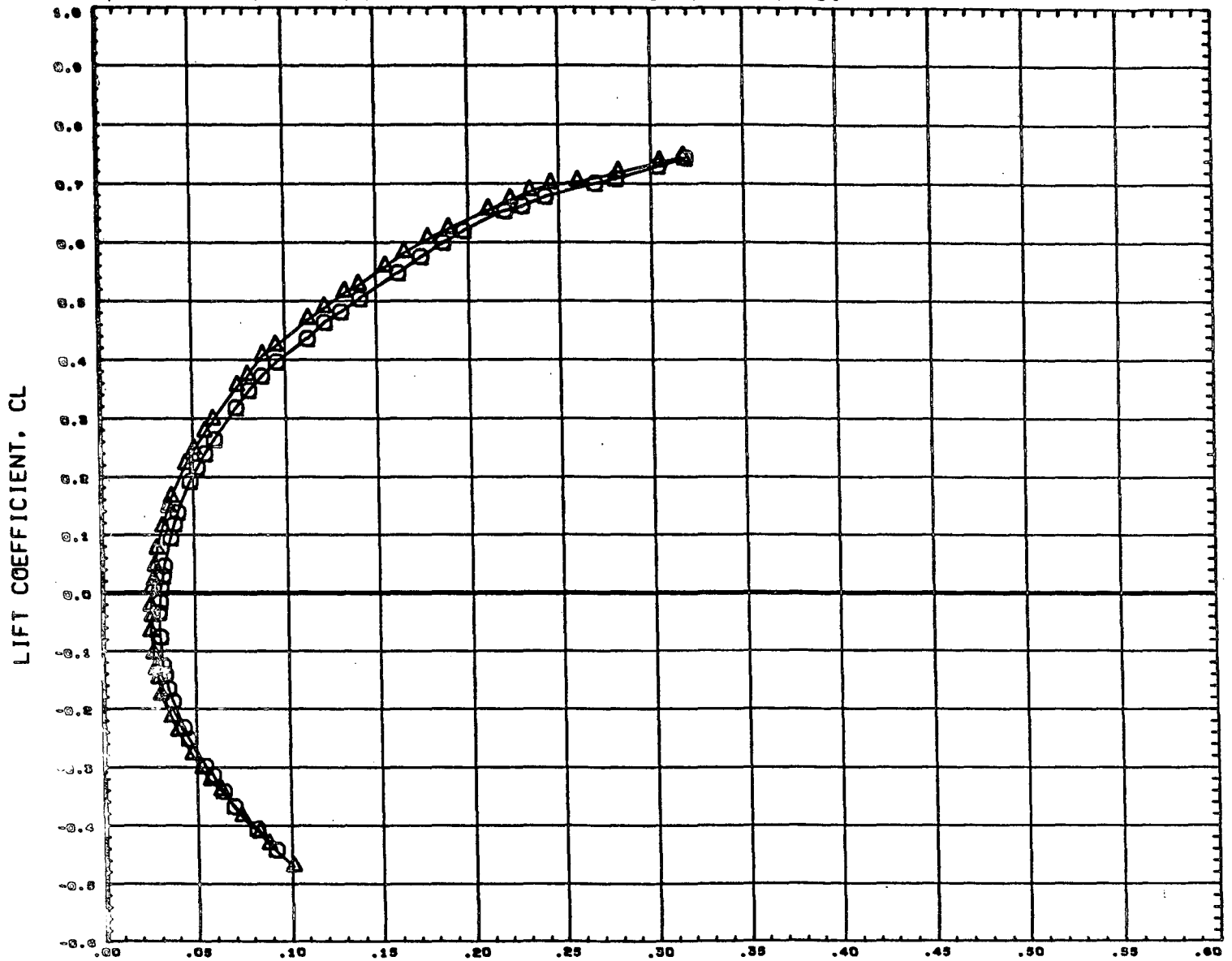
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7701) O	MDAC S-222 ORBITER ALONE O1
(CD7702) Δ	MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 49

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



FOREBODY DRAG COEFFICIENT, CDF

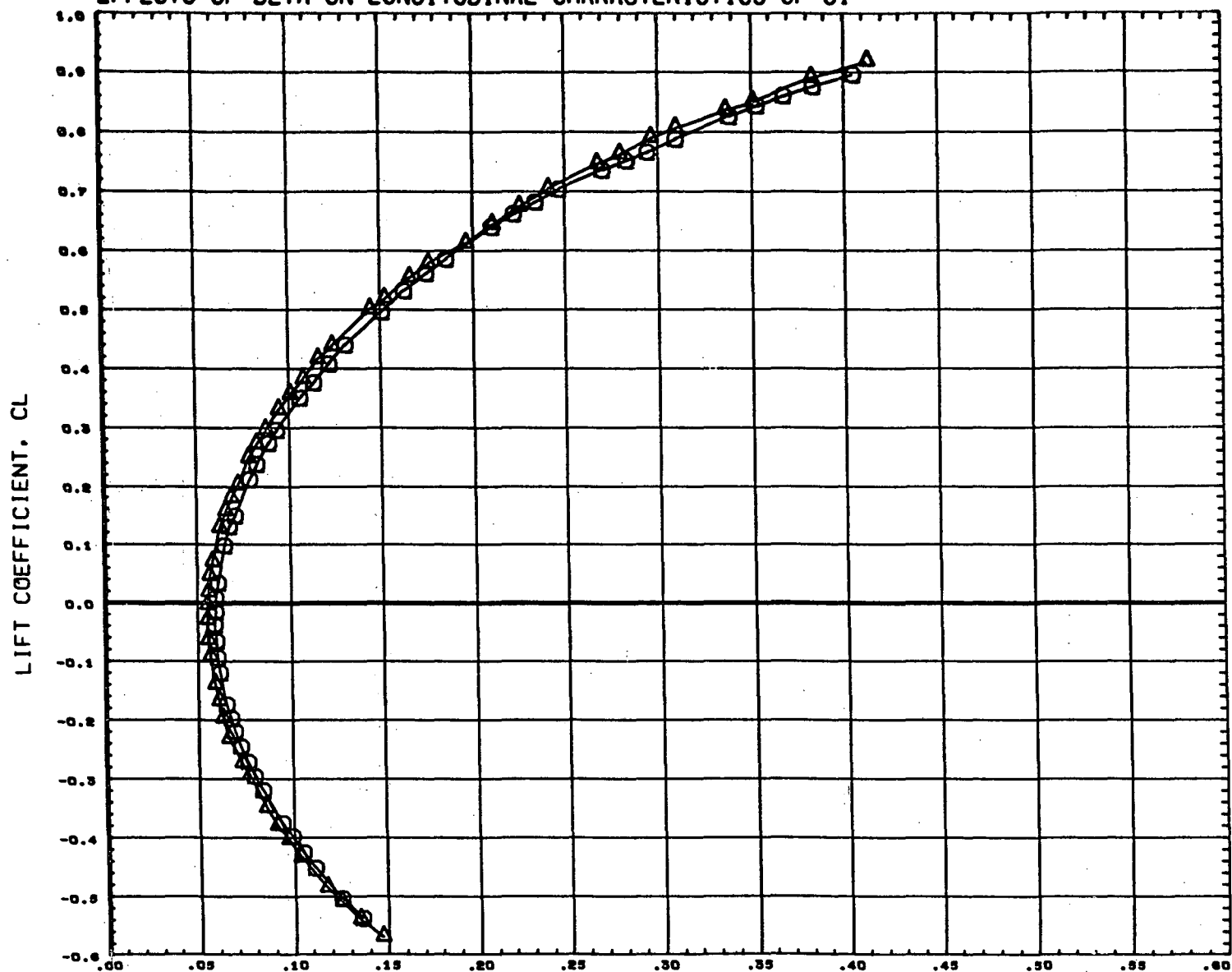
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE O1
 (CD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	862.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 50

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



FOREBODY DRAG COEFFICIENT, CDF

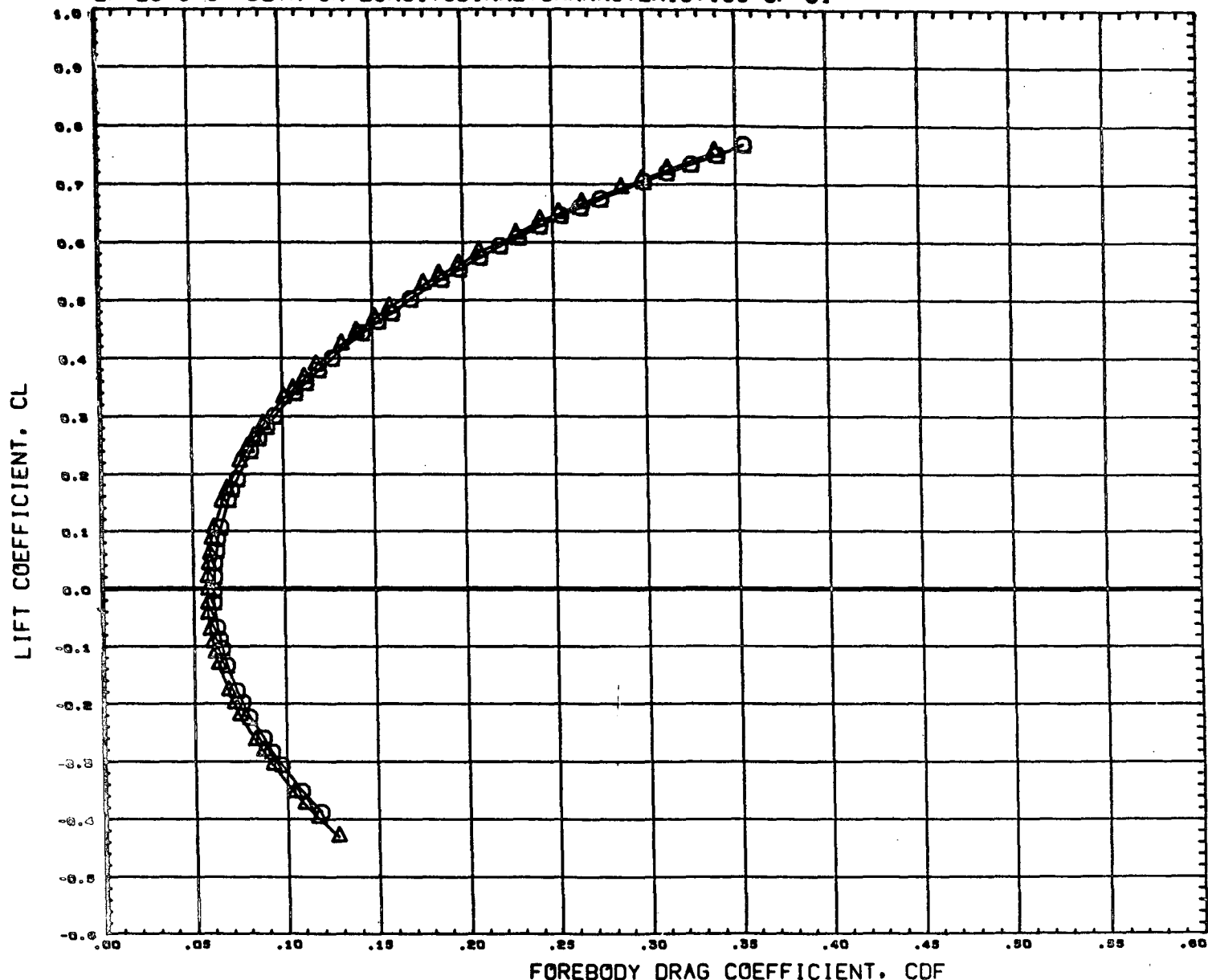
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) ○ MDAC S-222 ORBITER ALONE O1
 (CD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	682.0004 IN.
				XMRF	1068.0040 IN.
				YMRF	0.0000 IN.
				ZMRF	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 51

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



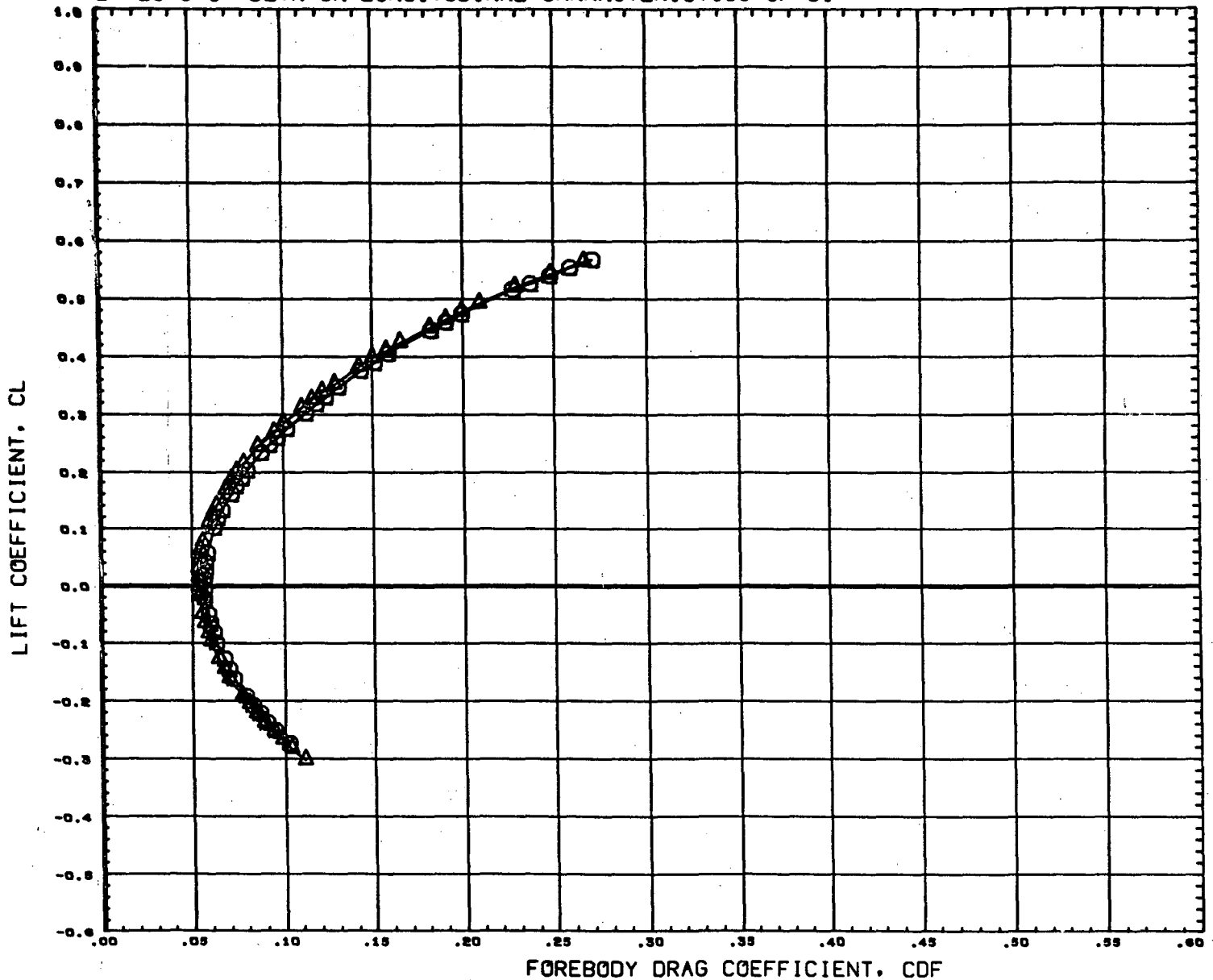
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE O1
(CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.51

PAGE 52

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



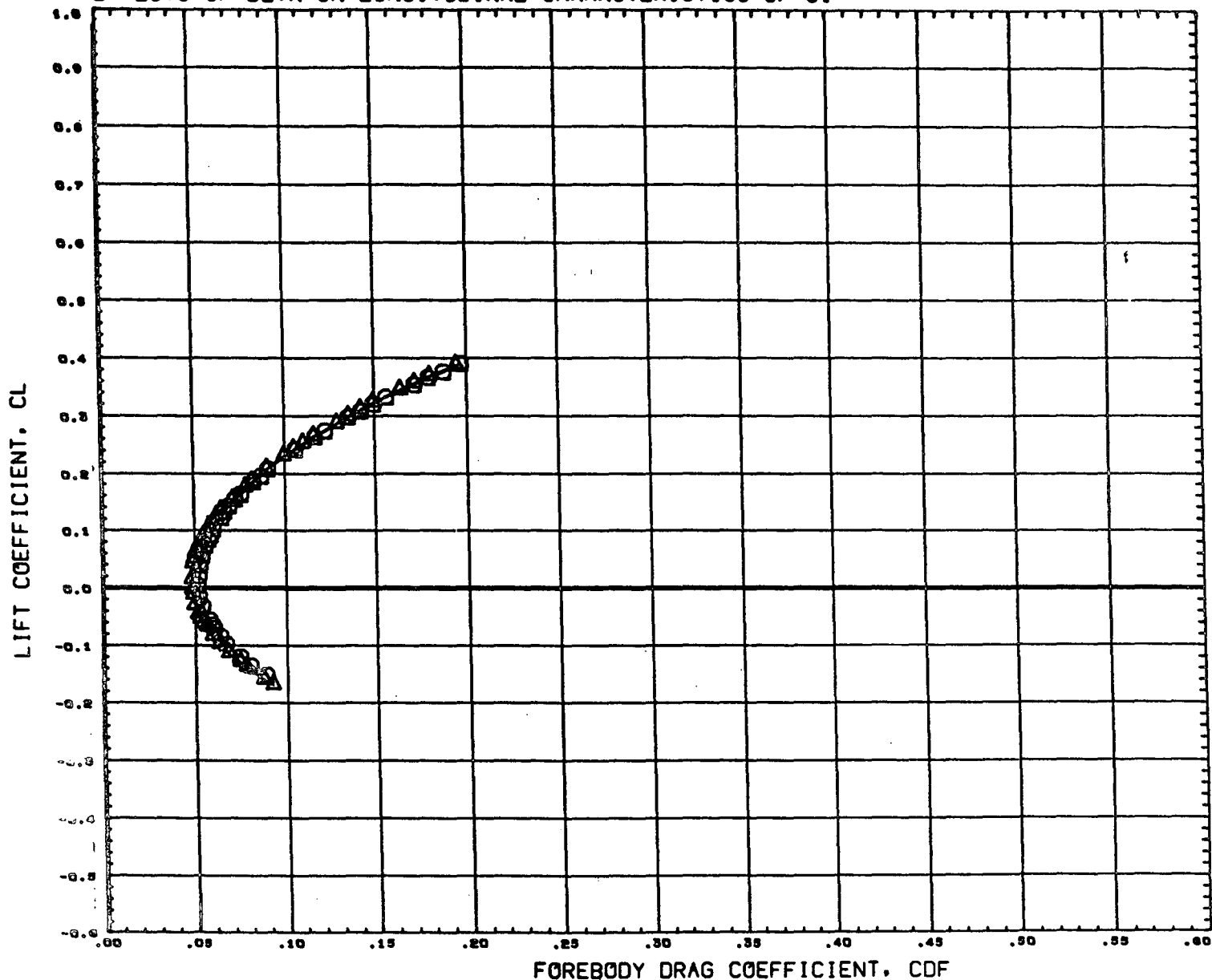
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3135.3040	SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	682.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 2.20

PAGE 53

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE O1
(CD7702) MDAC S-222 ORBITER ALONE O1

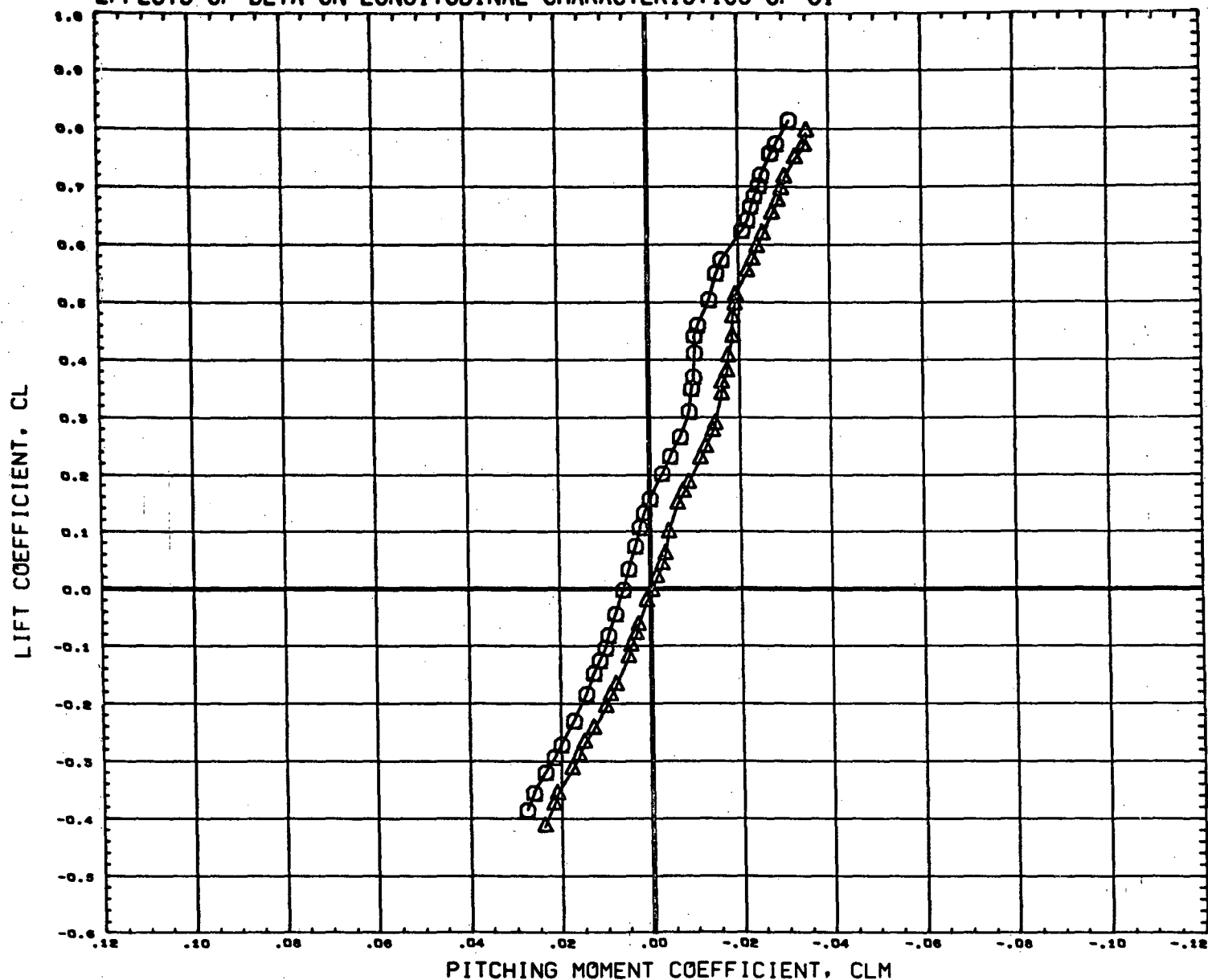
FOREBODY DRAG COEFFICIENT, CDF

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

PAGE 54

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



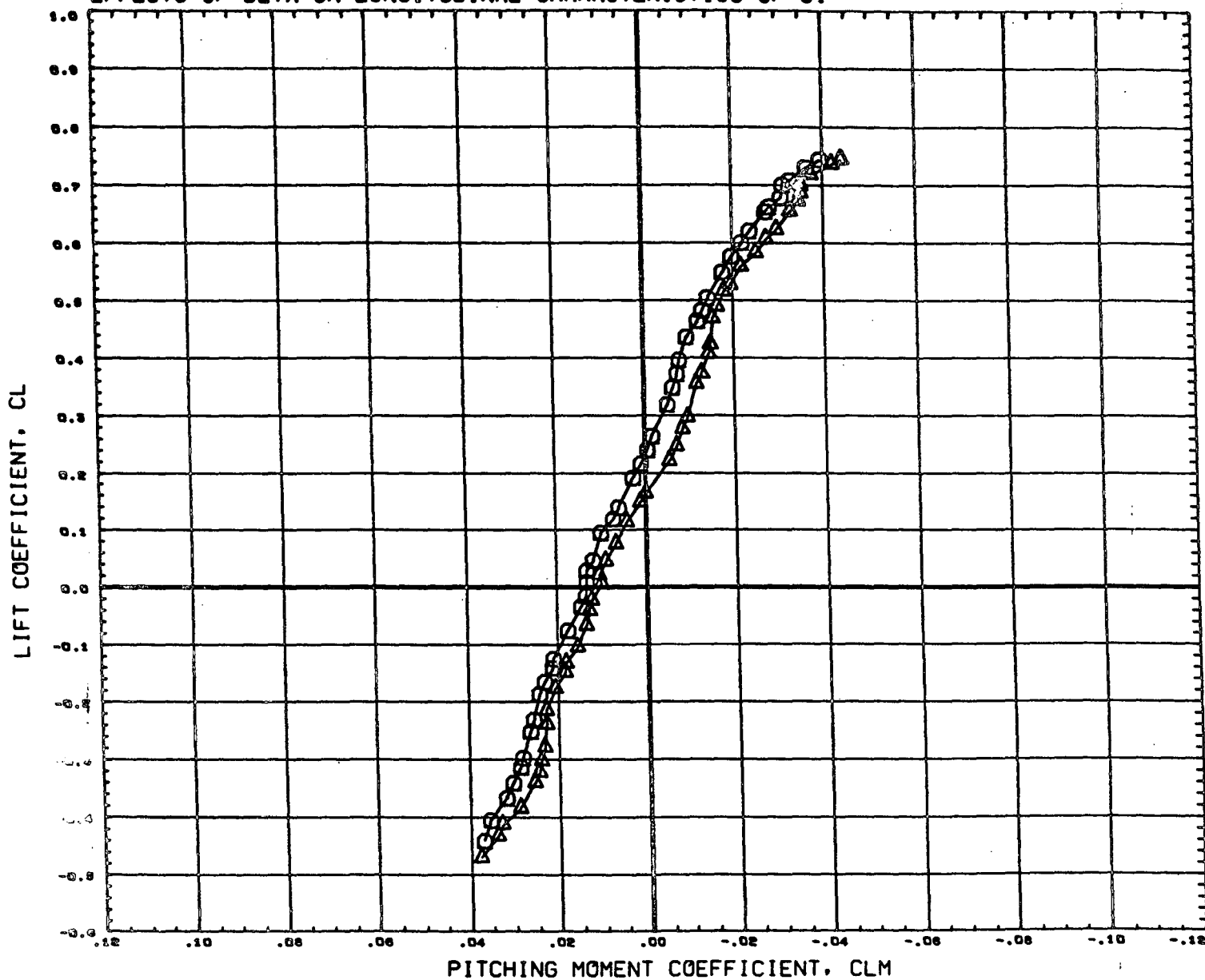
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMHP	1066.0040 IN.
				YMHP	0.0000 IN.
				ZMHP	454.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 55

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701)  MDAC S-222 ORBITER ALONE O1
 (CD7702)  MDAC S-222 ORBITER ALONE O1

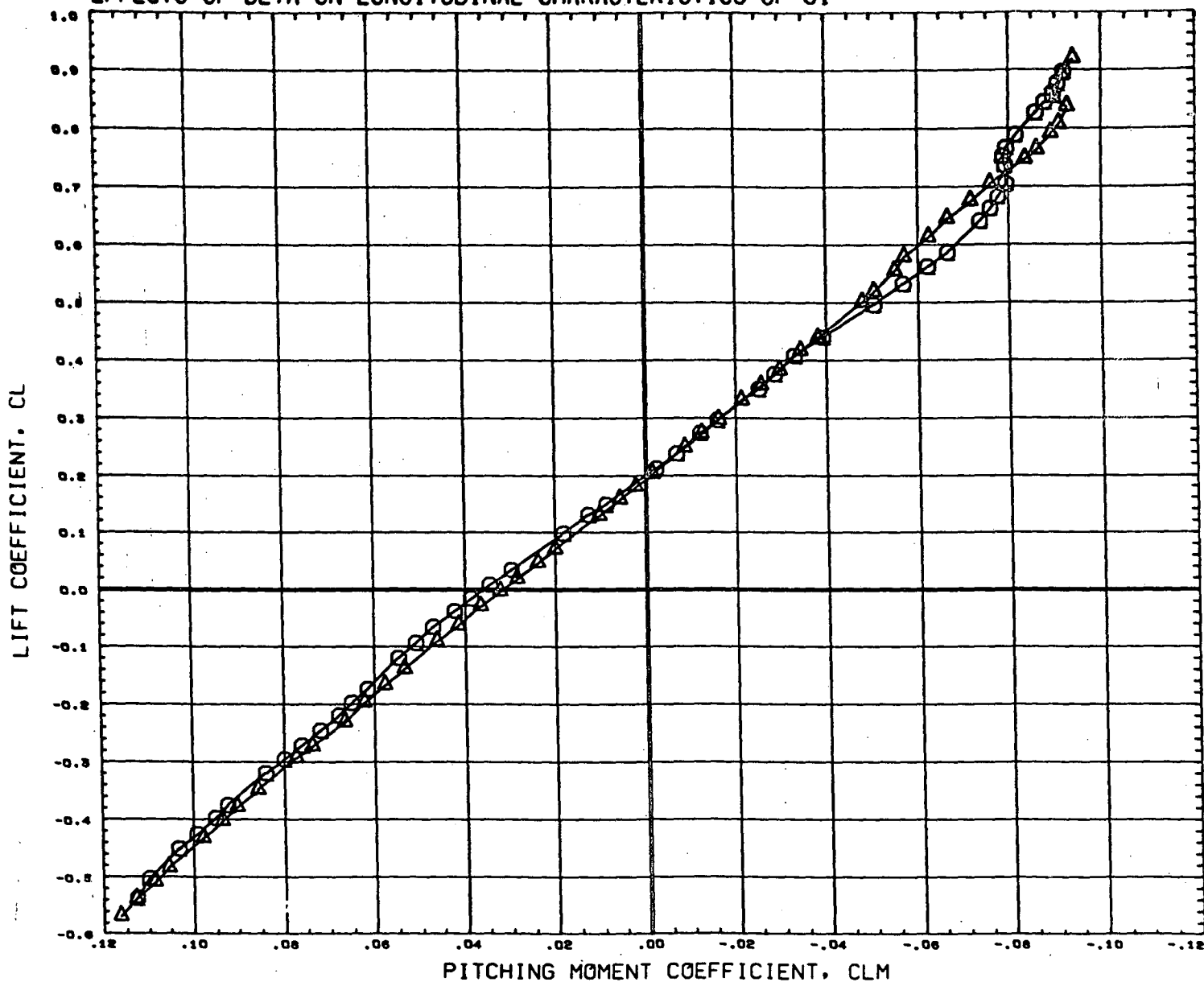
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 56

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



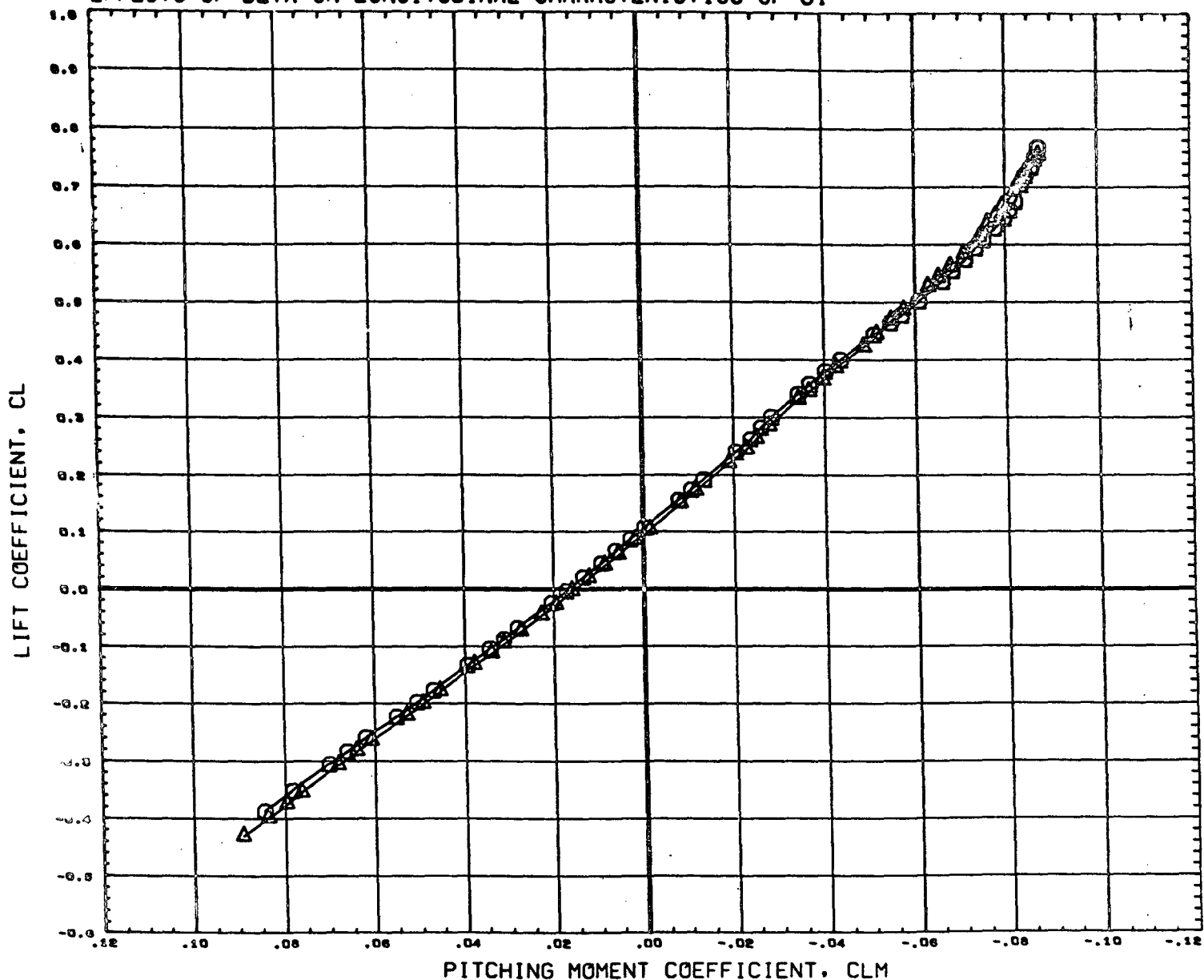
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 57

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



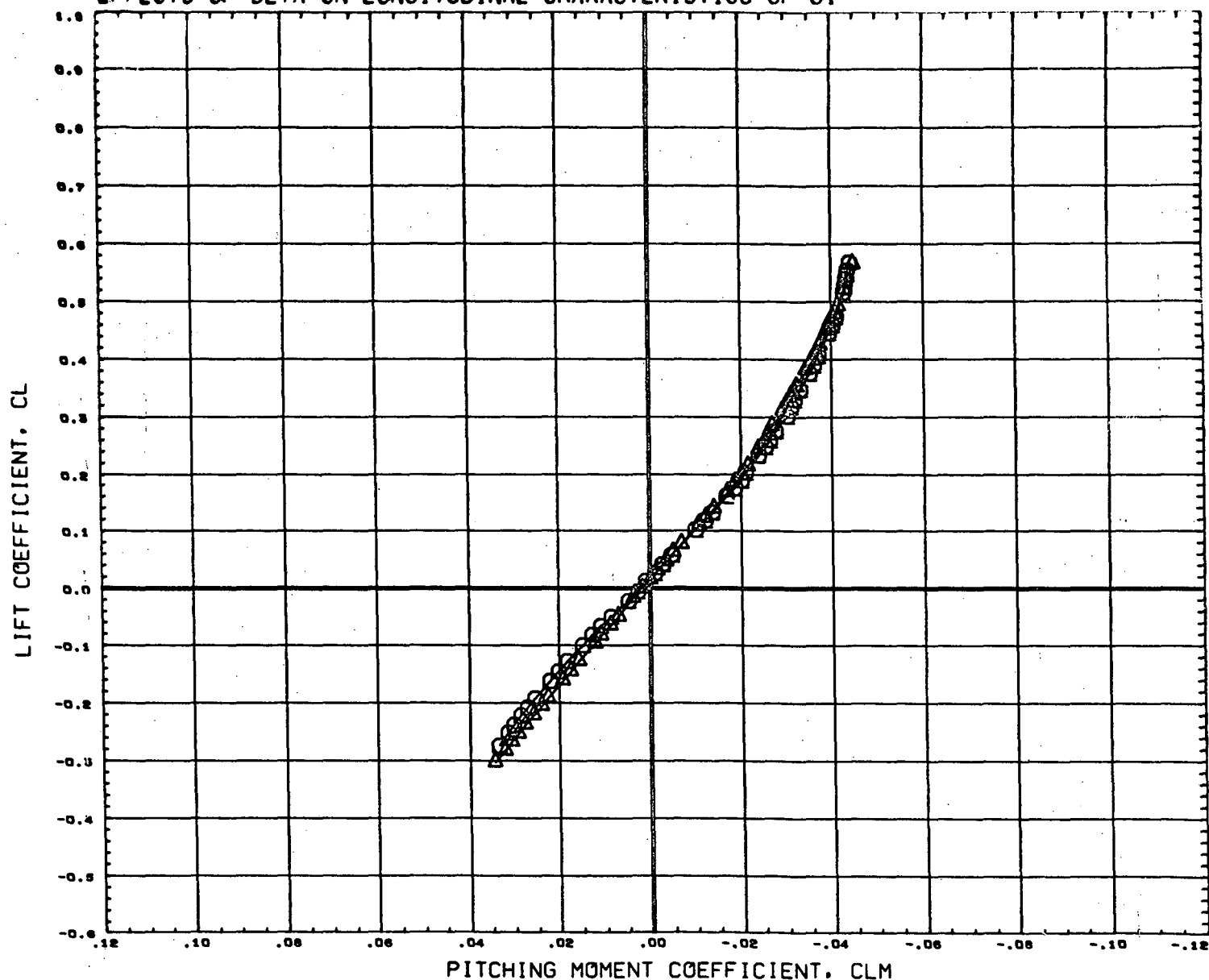
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7701) MDAC S-222 ORBITER ALONE O1
(CD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.51

PAGE 58

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1



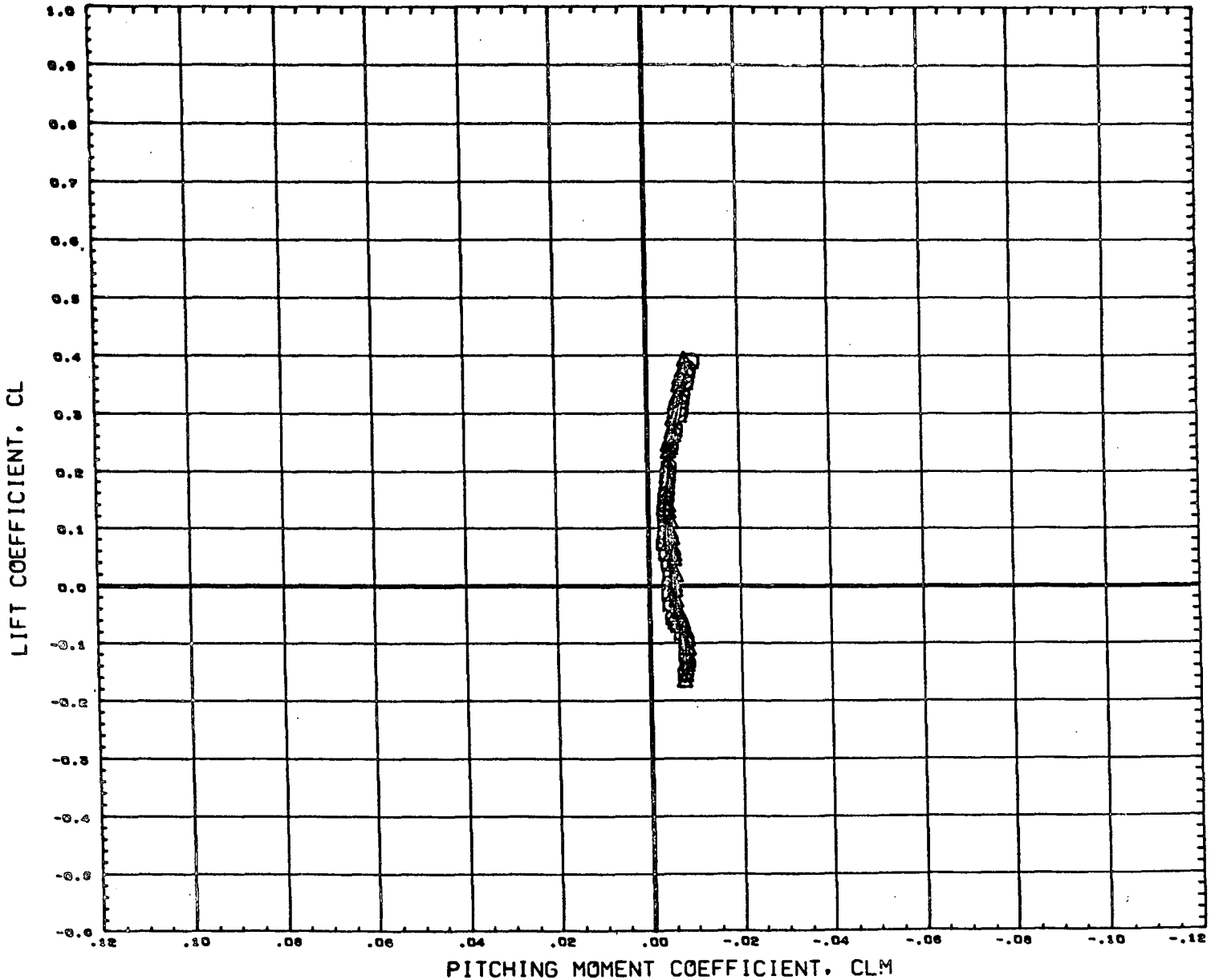
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7701) MDAC S-222 ORBITER ALONE O1
 (CD7702) MDAC S-222 ORBITER ALONE O1



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 59

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C07701)  MDAC S-222 ORBITER ALONE 01
 (C07702)  MDAC S-222 ORBITER ALONE 01

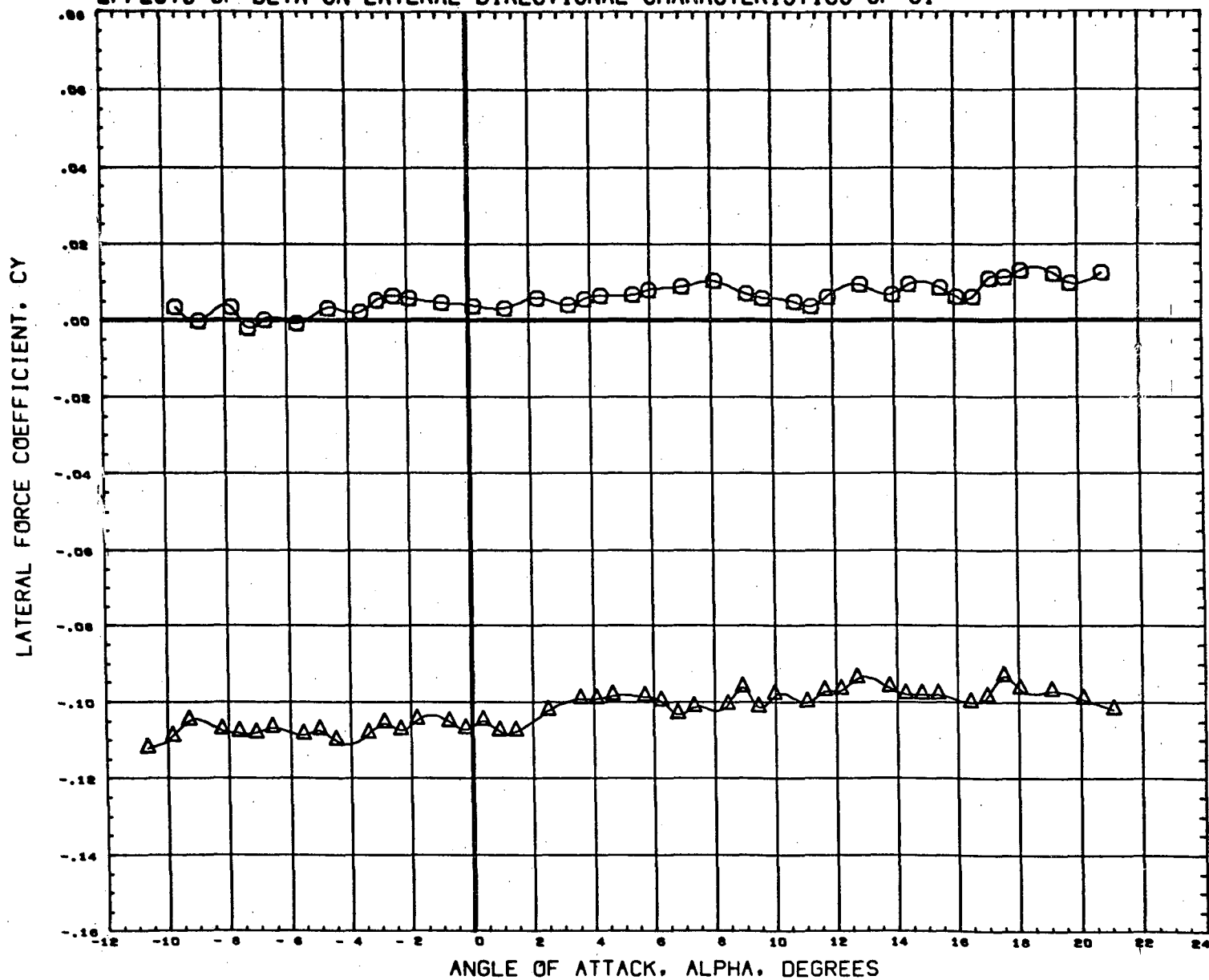
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	1066.0040 IN.
YMRP	0.0000 IN.
ZMRP	404.0004 IN.
SCALE	0.0060

MACH 4.47

PAGE 60

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



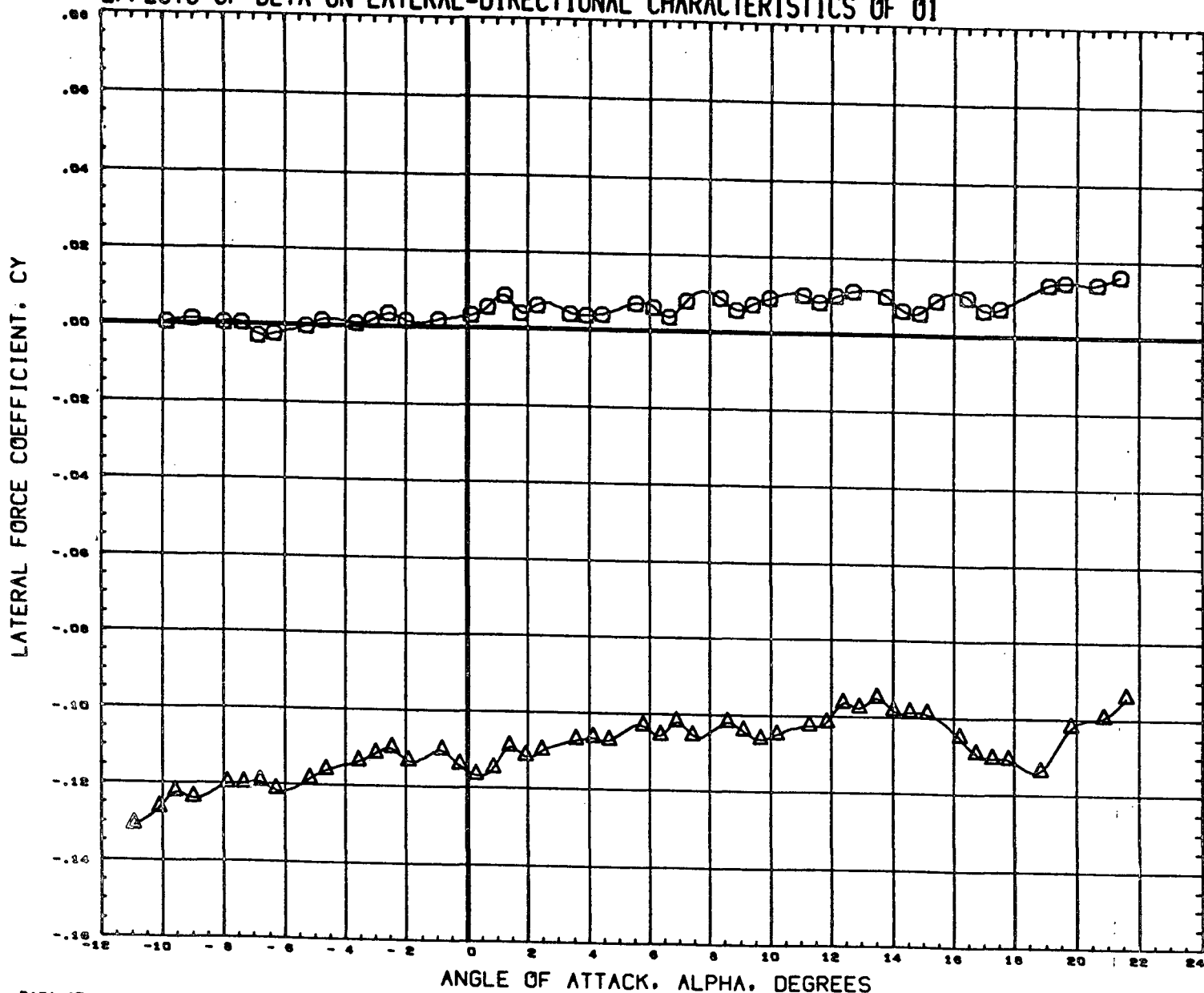
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE O1
(RD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 61

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01

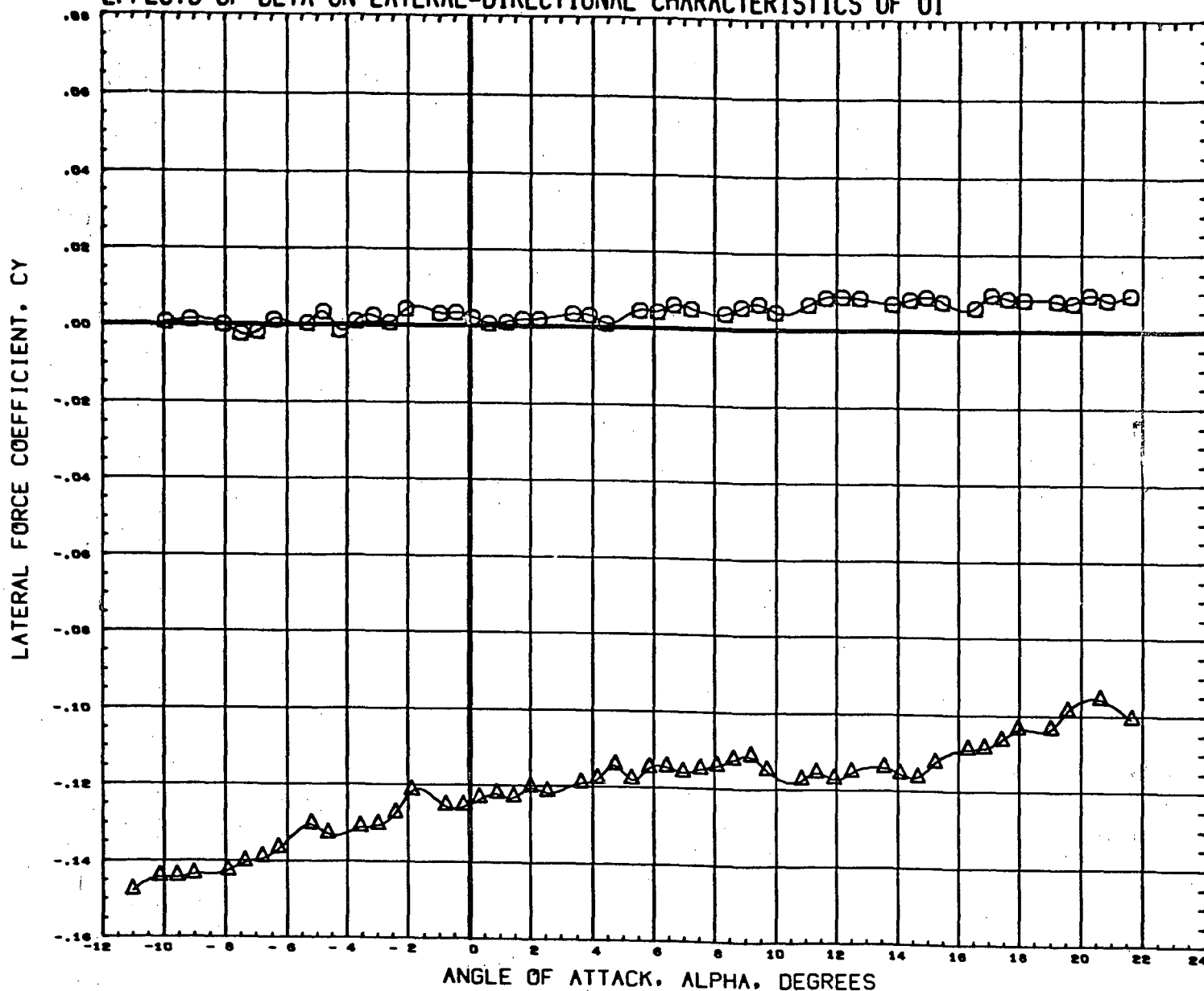


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE O1
(RD7702) △ MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3135.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE O1
(RD7702) MDAC S-222 ORBITER ALONE O1

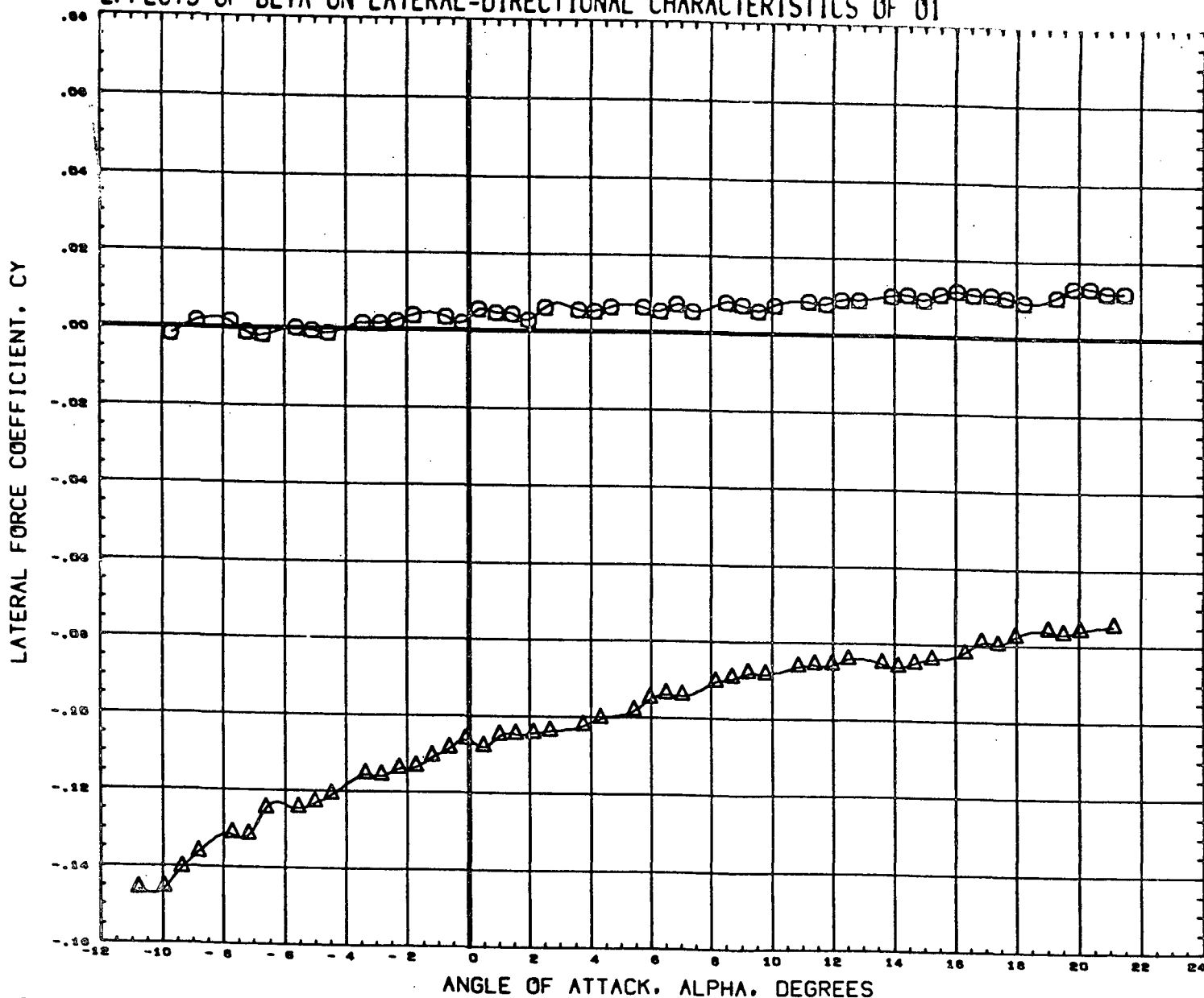
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.07

PAGE 63

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE O1
(RD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

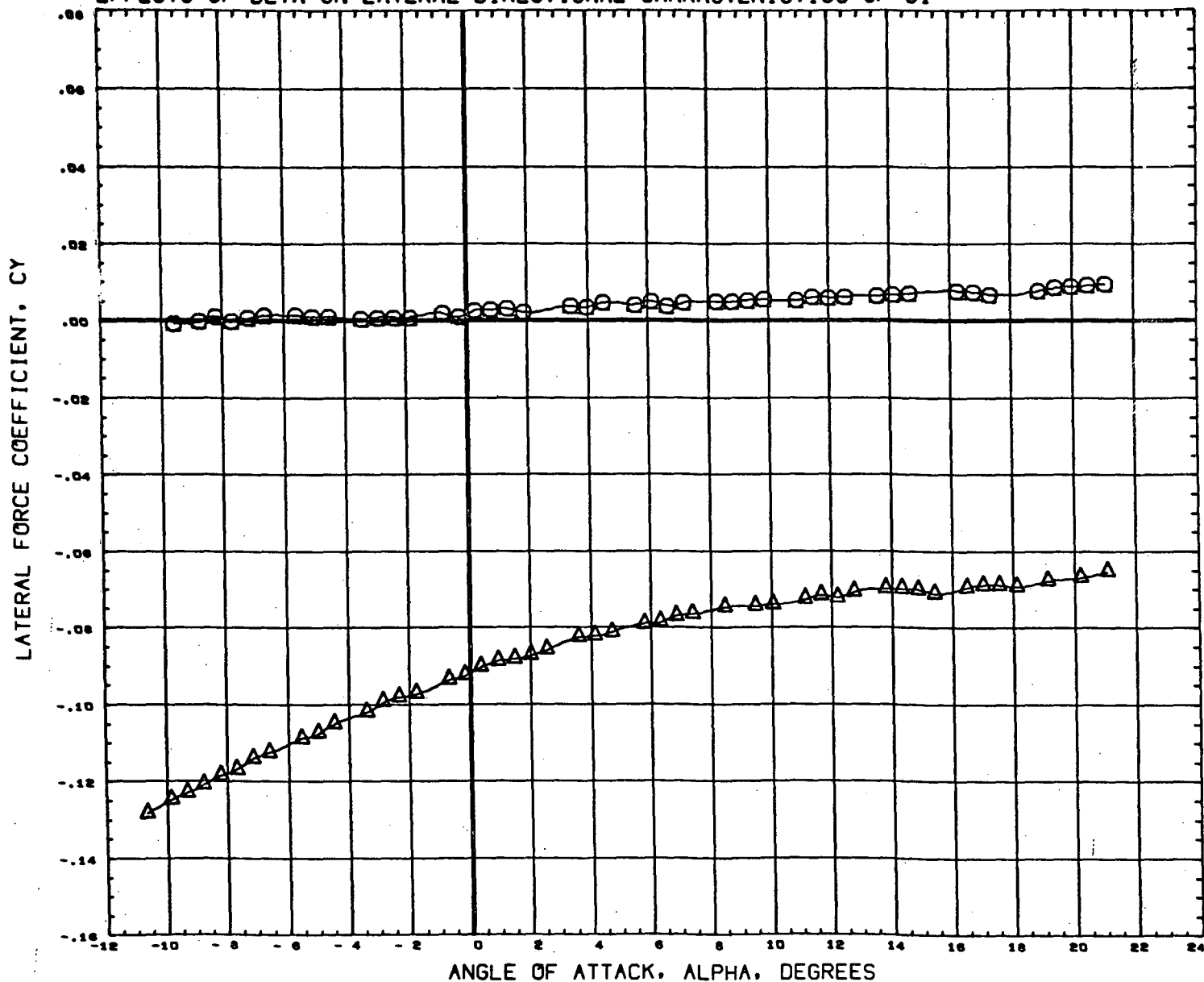
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH

1.51

PAGE 64

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



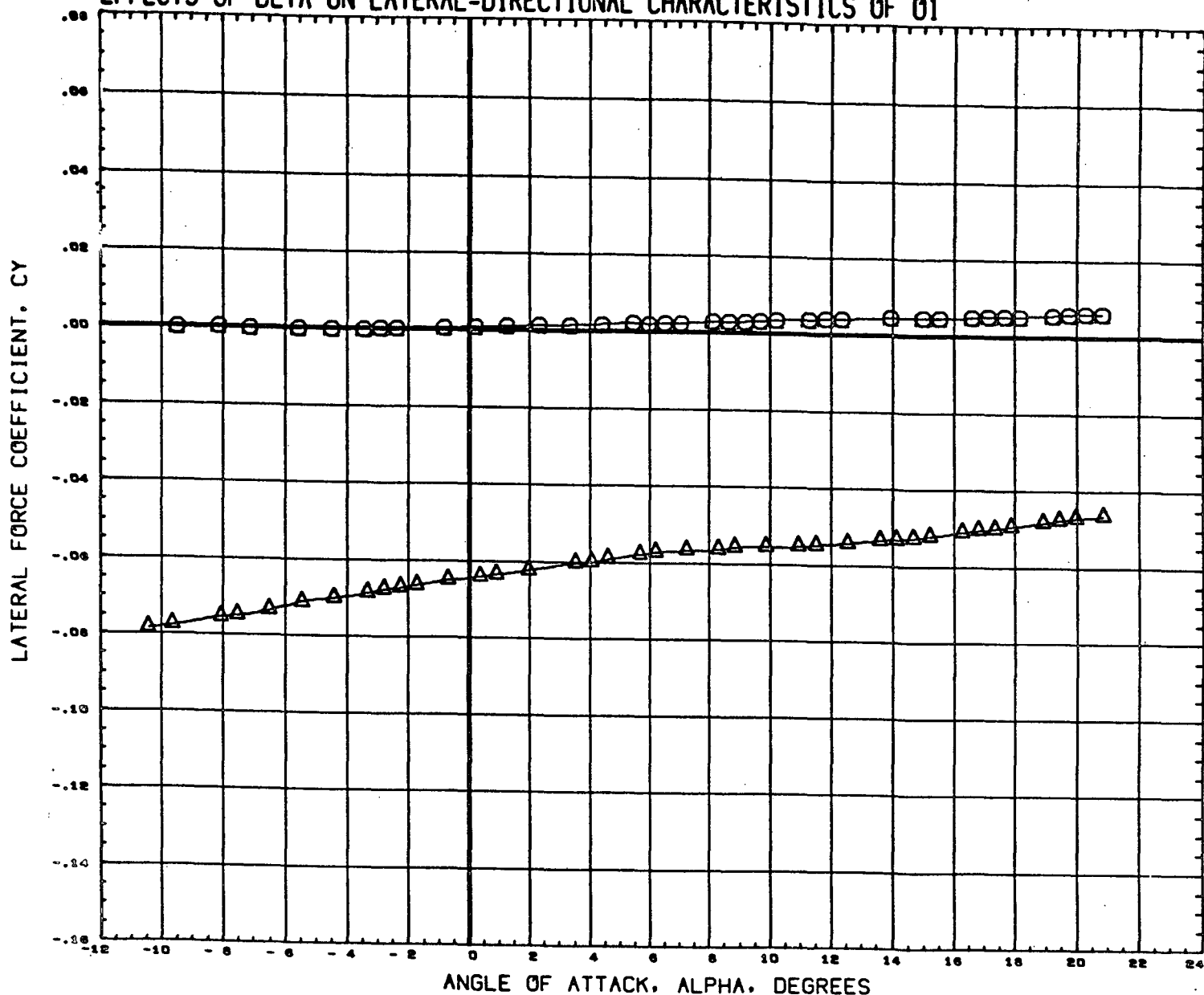
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE 01
(RD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	662.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 2.20

PAGE 65

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01

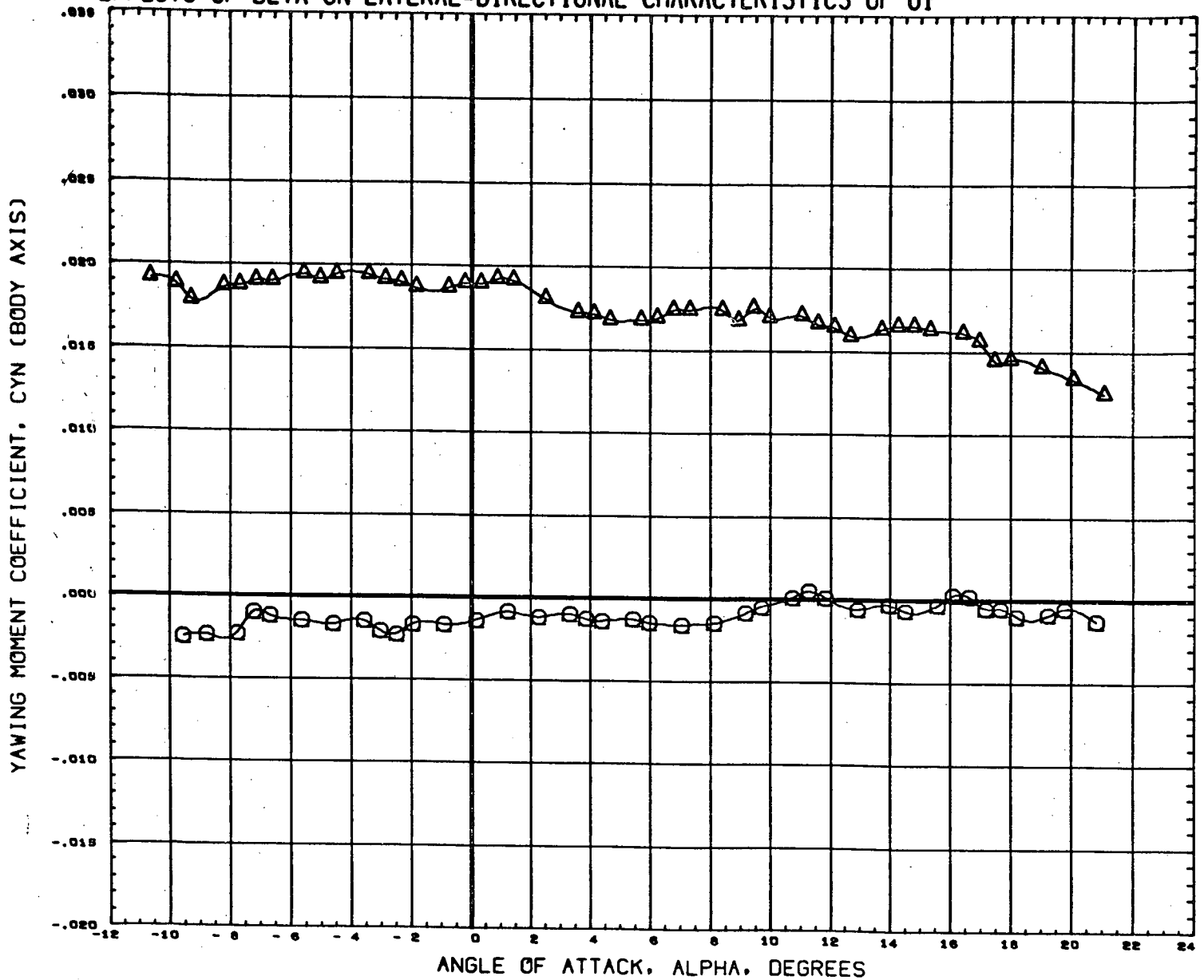


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE O1
(RD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 4.47

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01

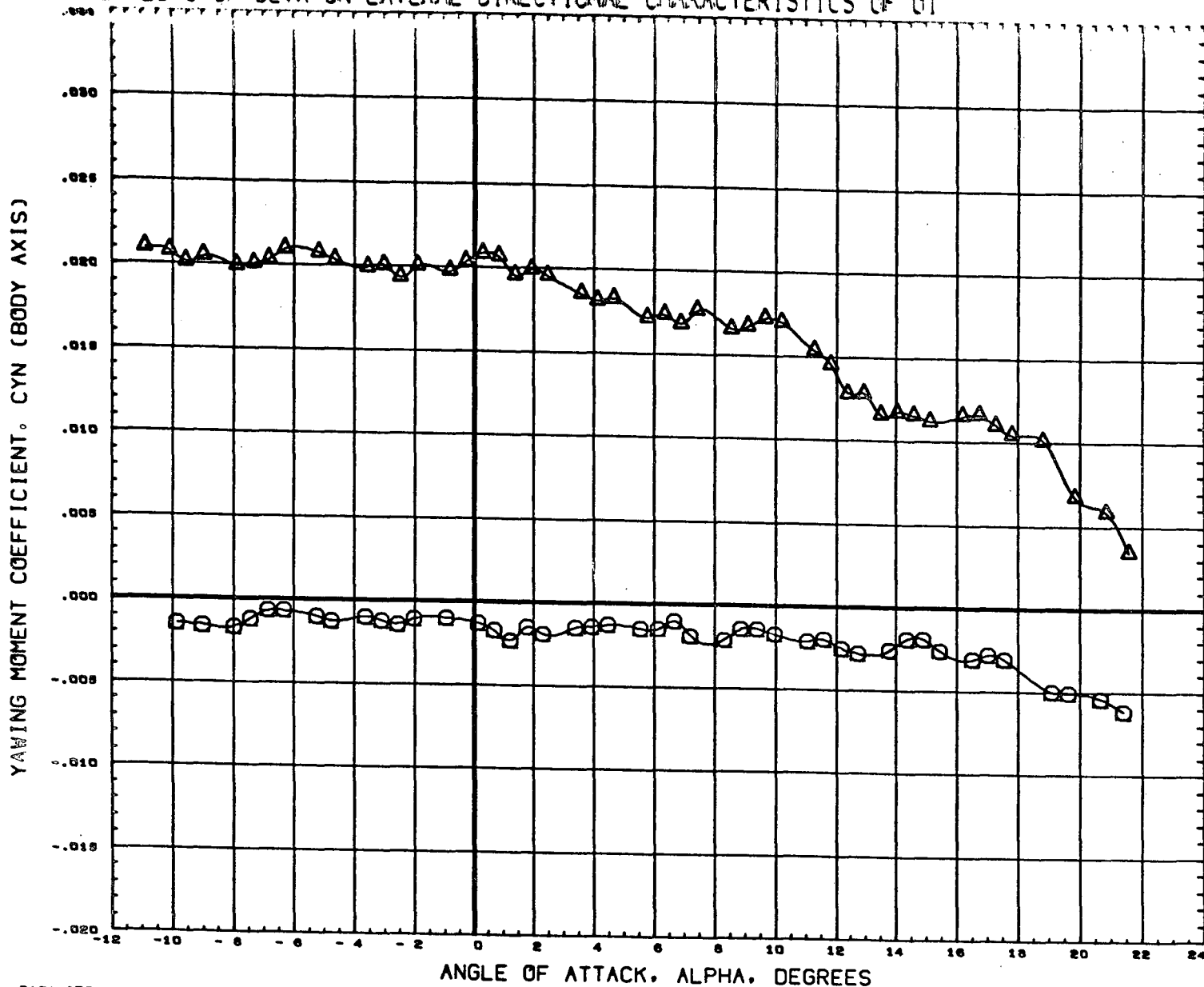


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) ○ MDAC S-222 ORBITER ALONE 01
 (RD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE O1
(RD7702) MDAC S-222 ORBITER ALONE O1

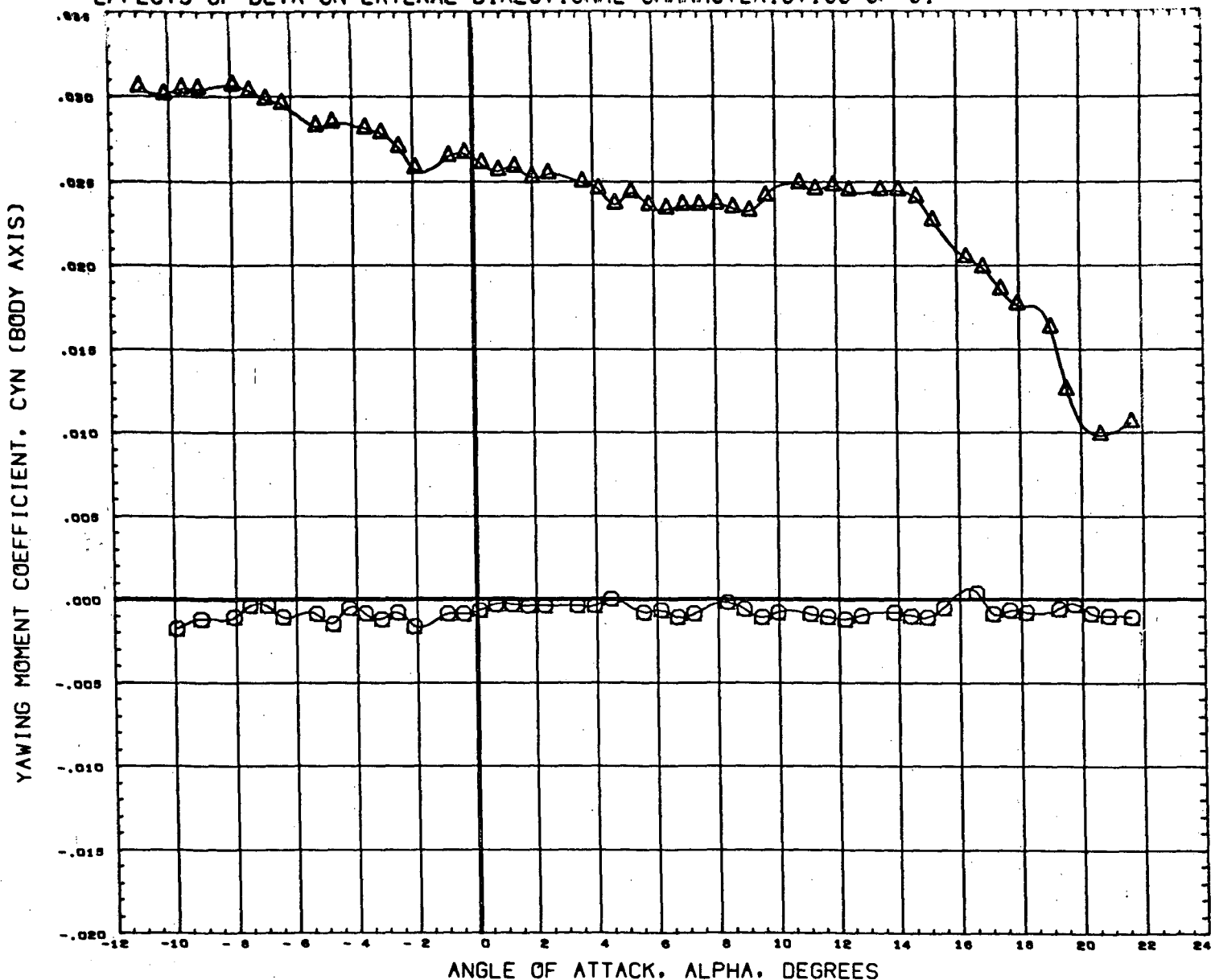
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 68

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



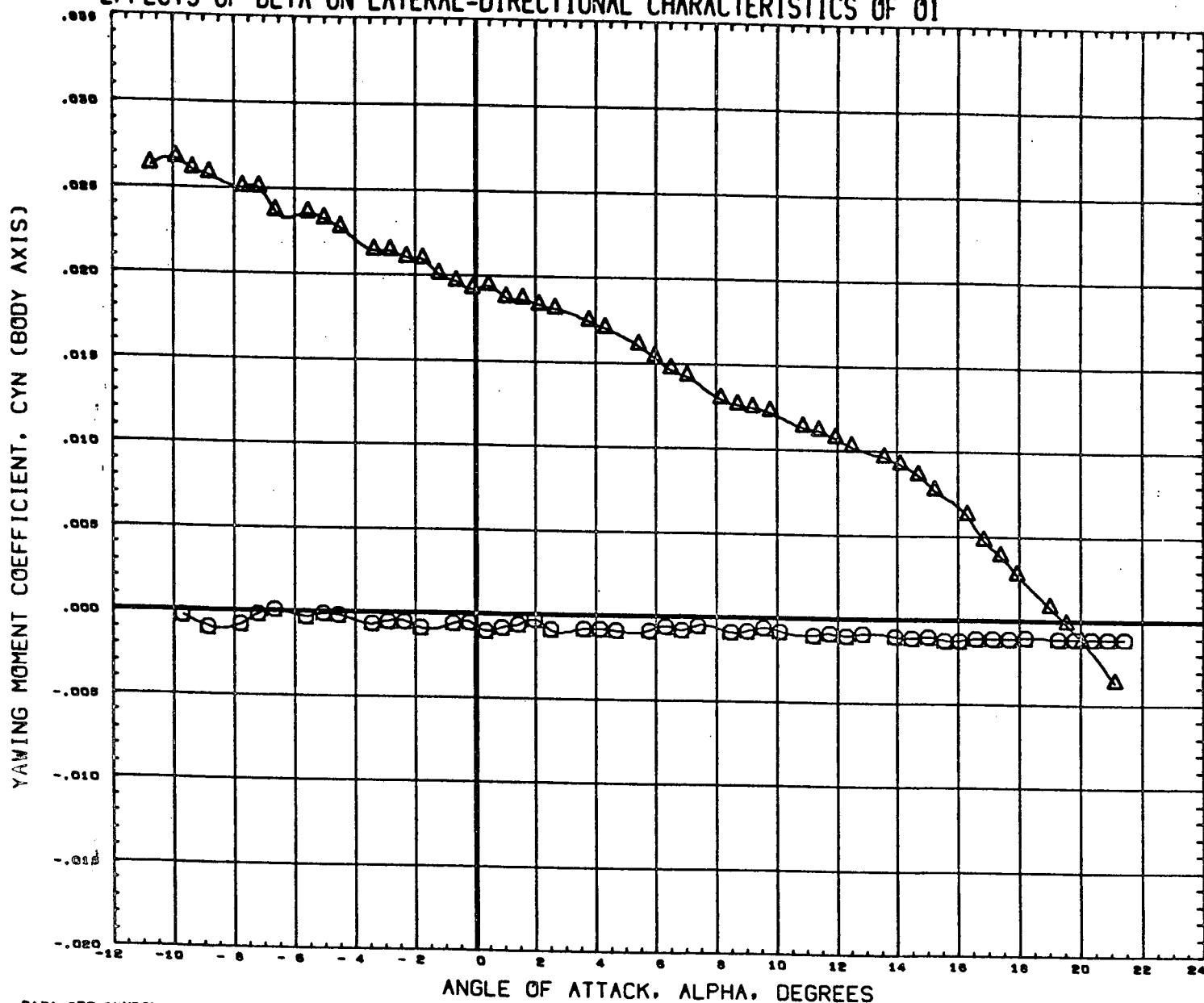
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE 01
 (RD7702) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	862.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 69

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



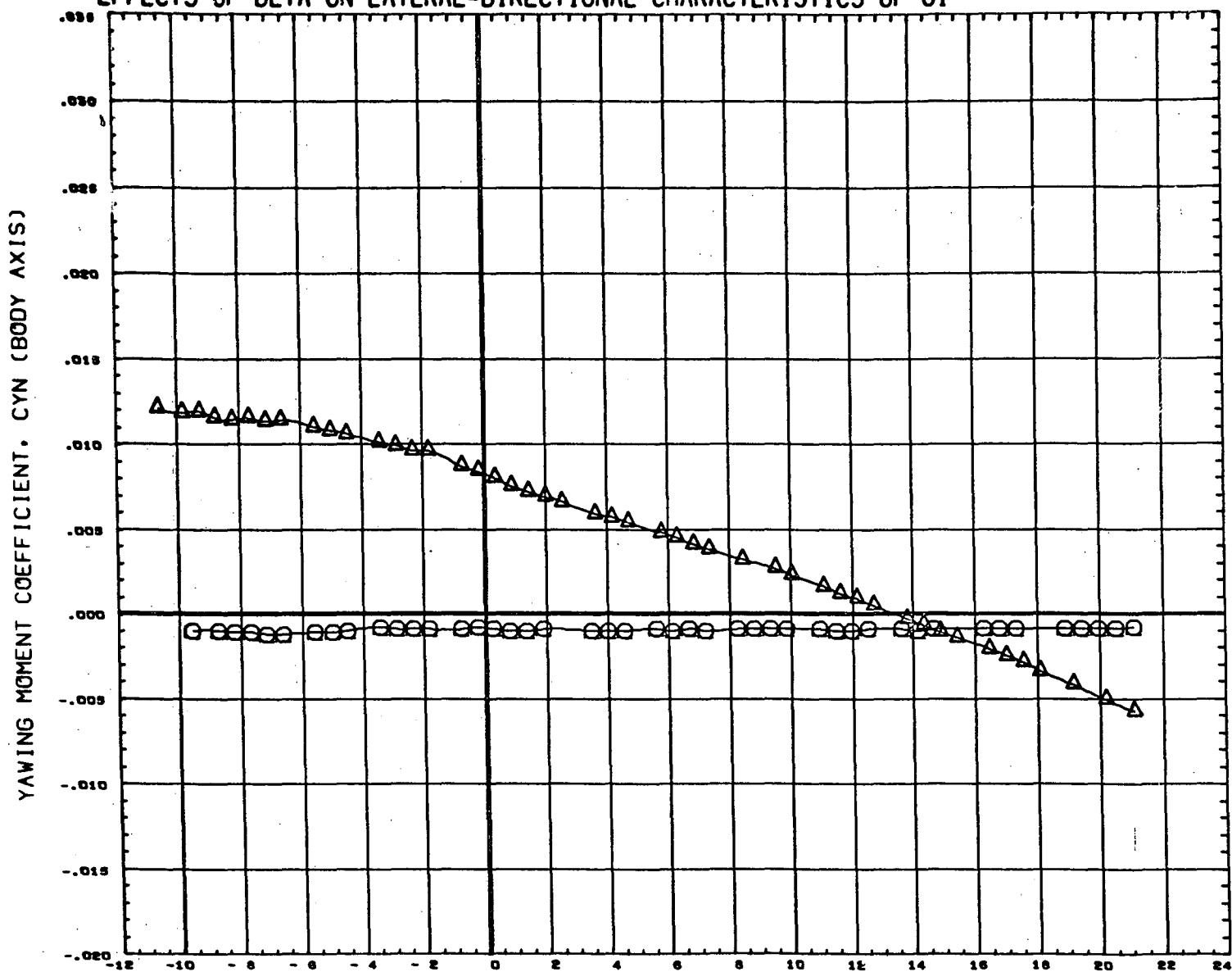
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE 01
(RD7702) MDAC S-222 ORBITER ALONE 01

BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.51

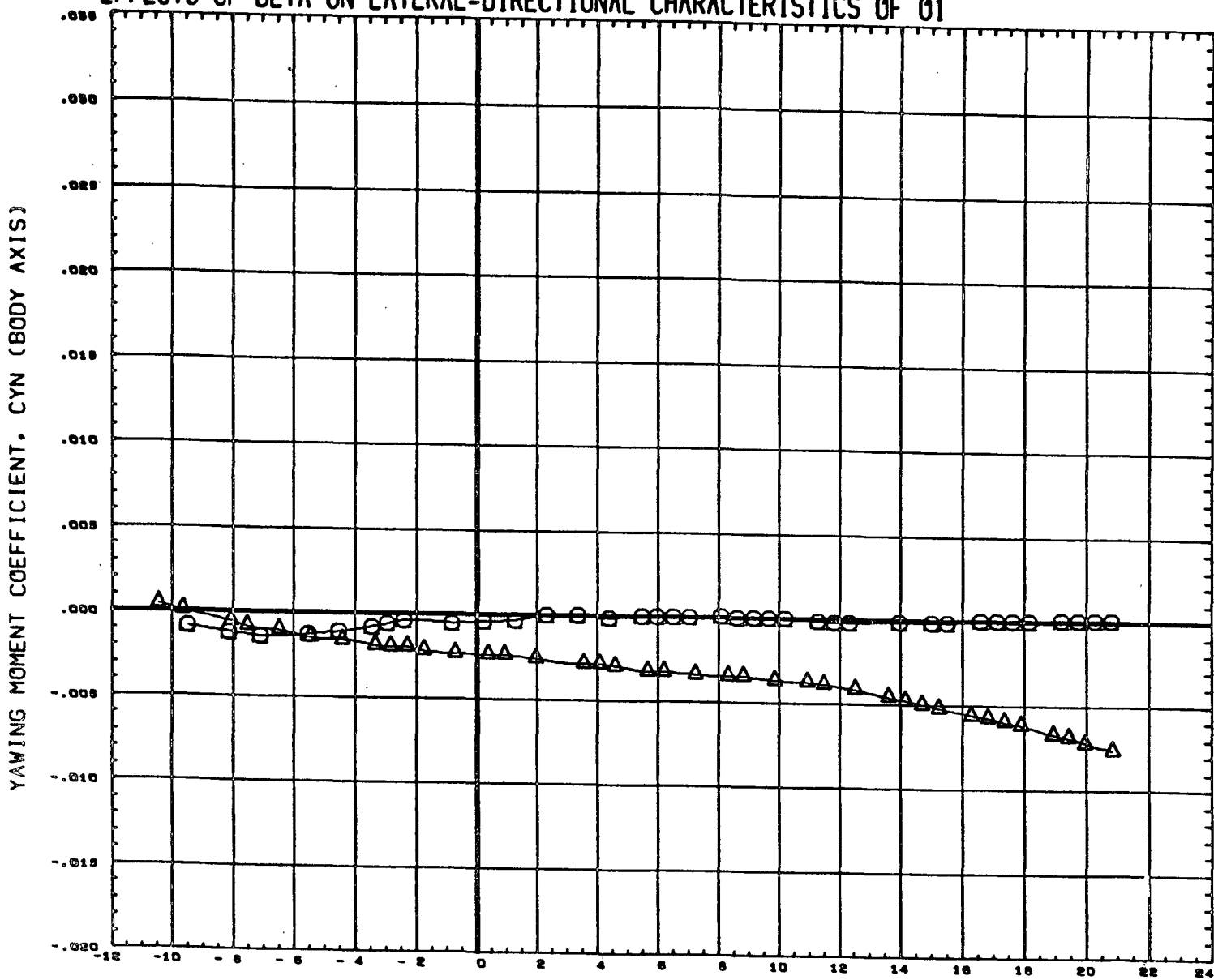
EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE O1
 (RD7702) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01

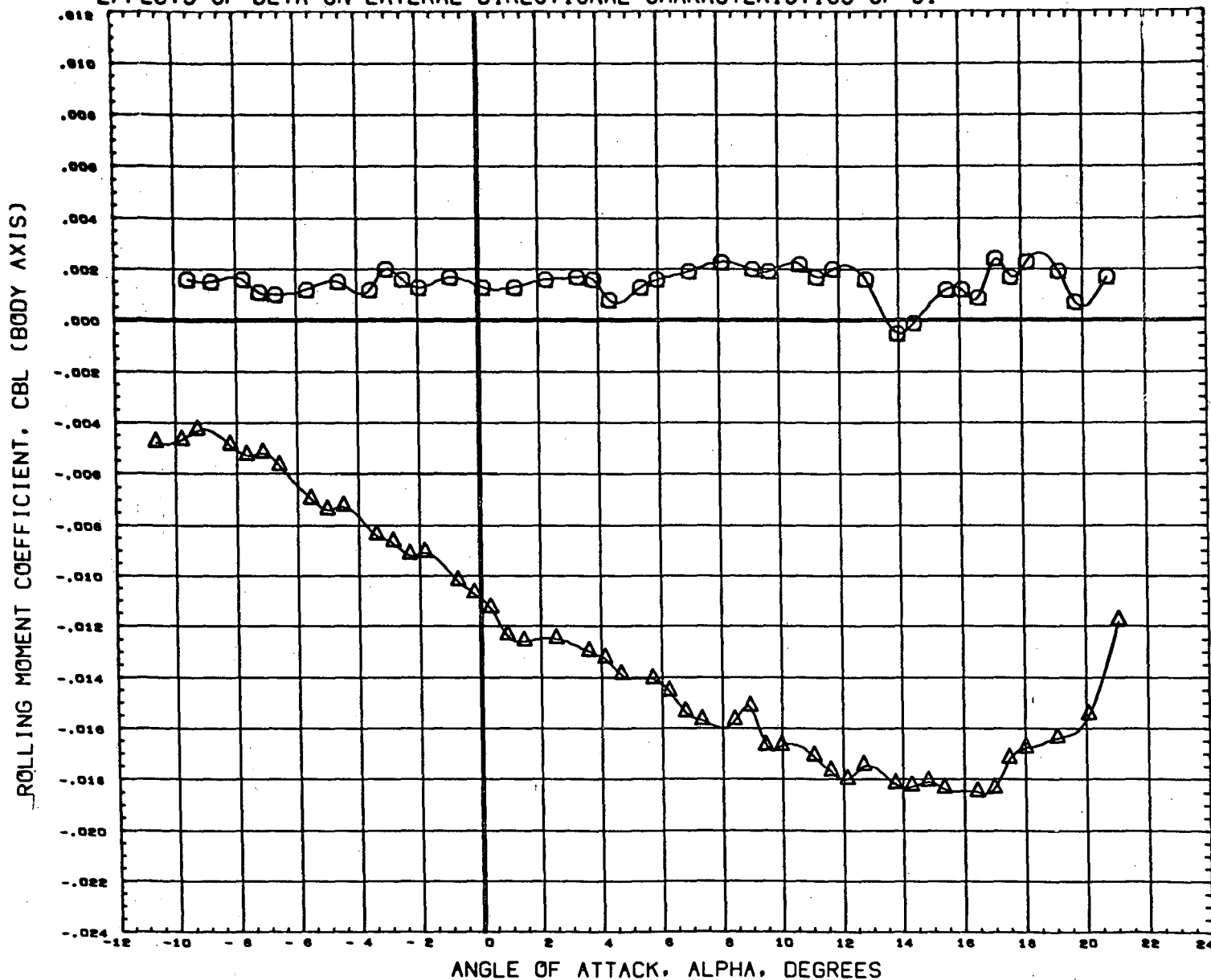


DATA SET, SYMBOL CONFIGURATION DESCRIPTION
(RD7701) \bigcirc MDAC S-222 ORBITER ALONE 01
(RD7702) \triangle MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 4.47

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



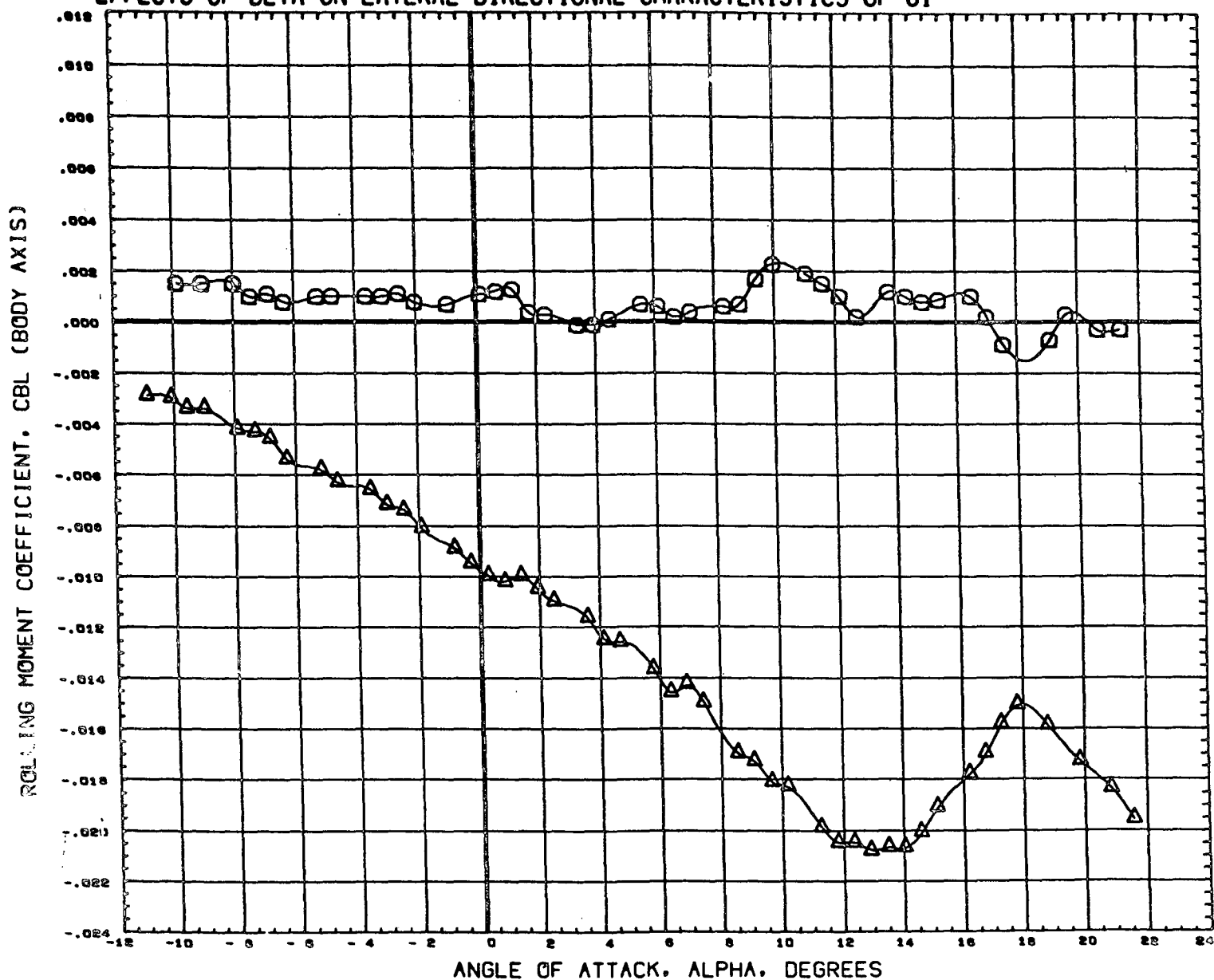
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE 01
(RD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1063.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 73

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE 01
(RD7702) MDAC S-222 ORBITER ALONE 01

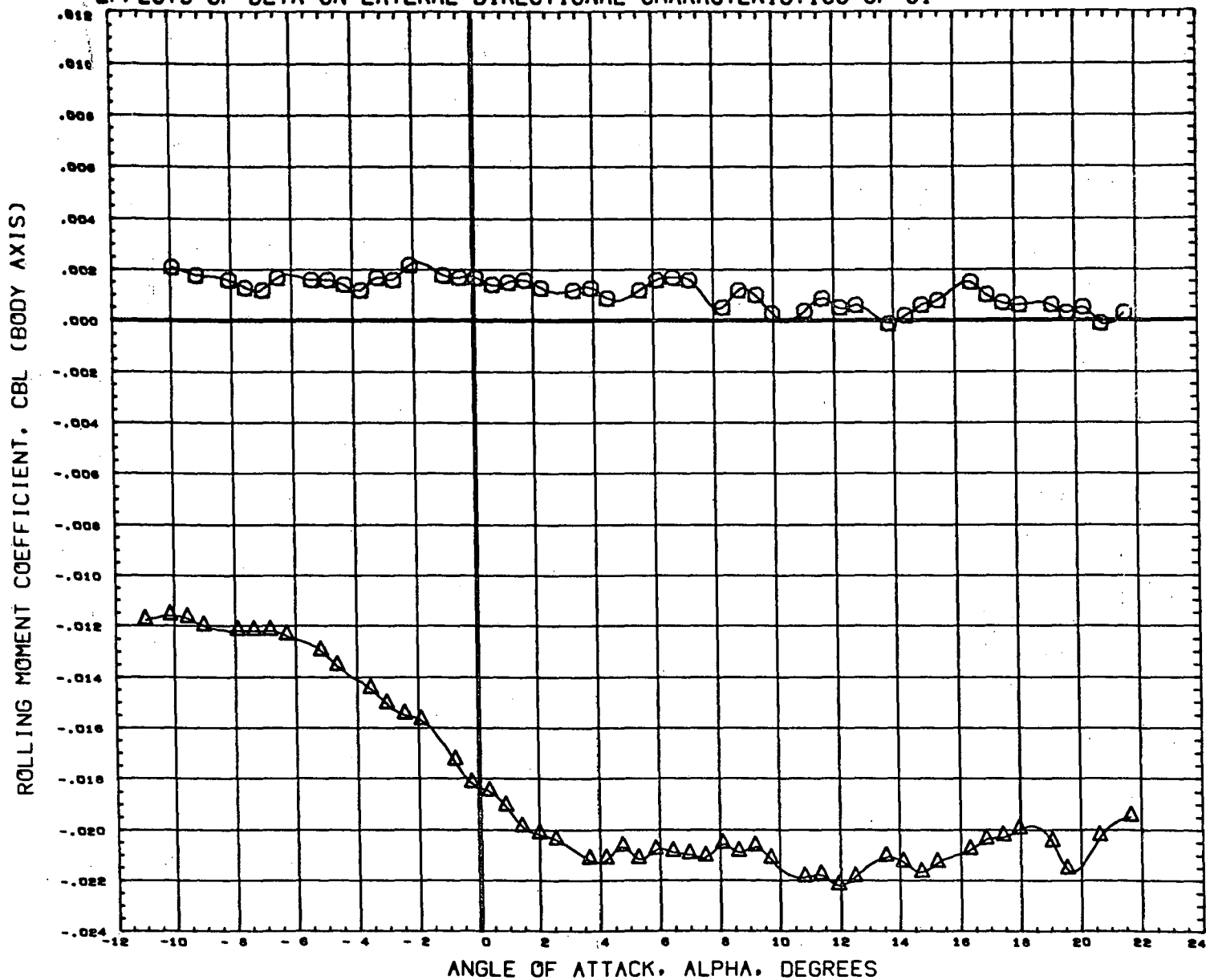
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 662.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 74

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



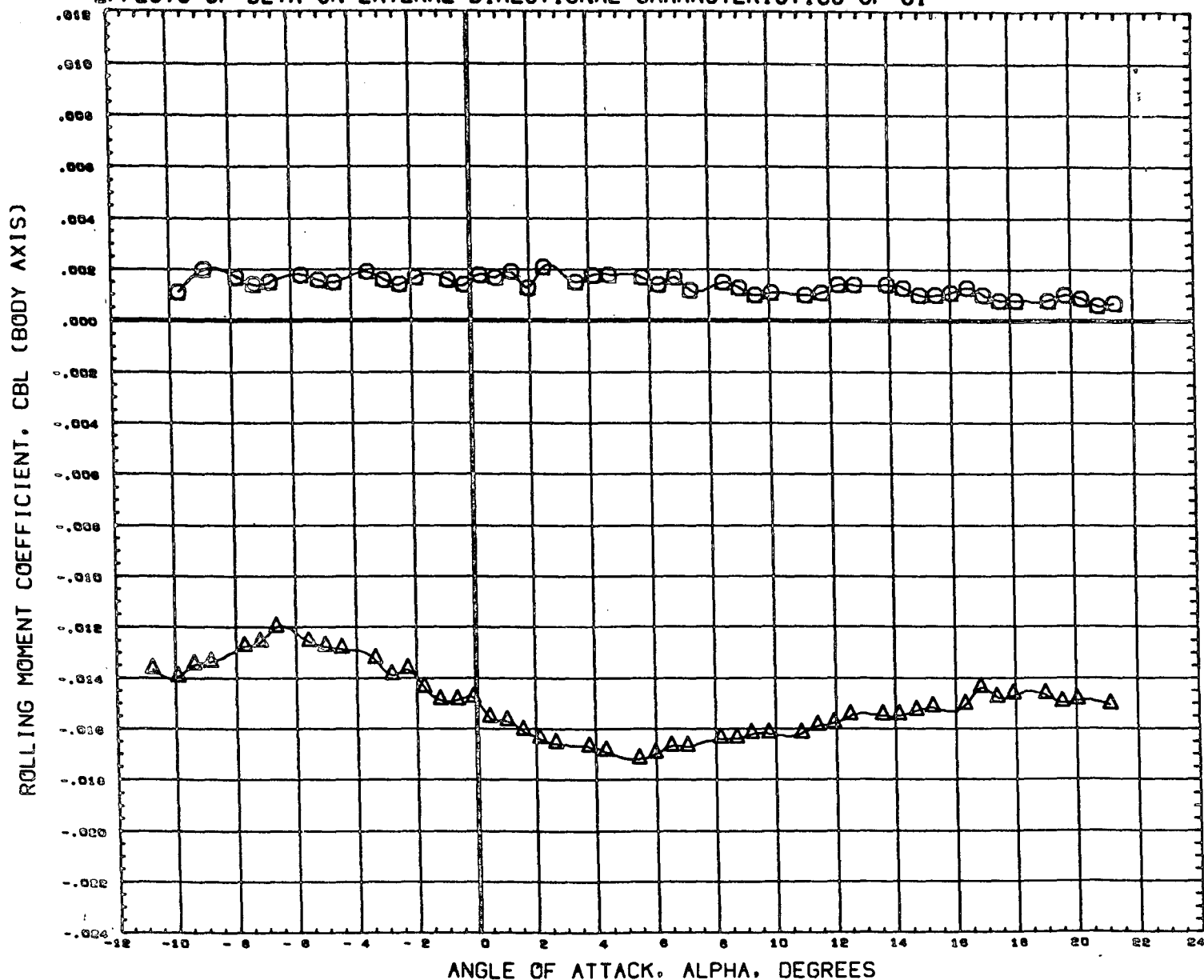
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE 01
(RD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMHP	1066.0040 IN.
				YMHP	0.0000 IN.
				ZMHP	404.0004 IN.
				SCALE	0.0060

MACH 1.07

PAGE 75

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE O1
(RD7702) MDAC S-222 ORBITER ALONE O1

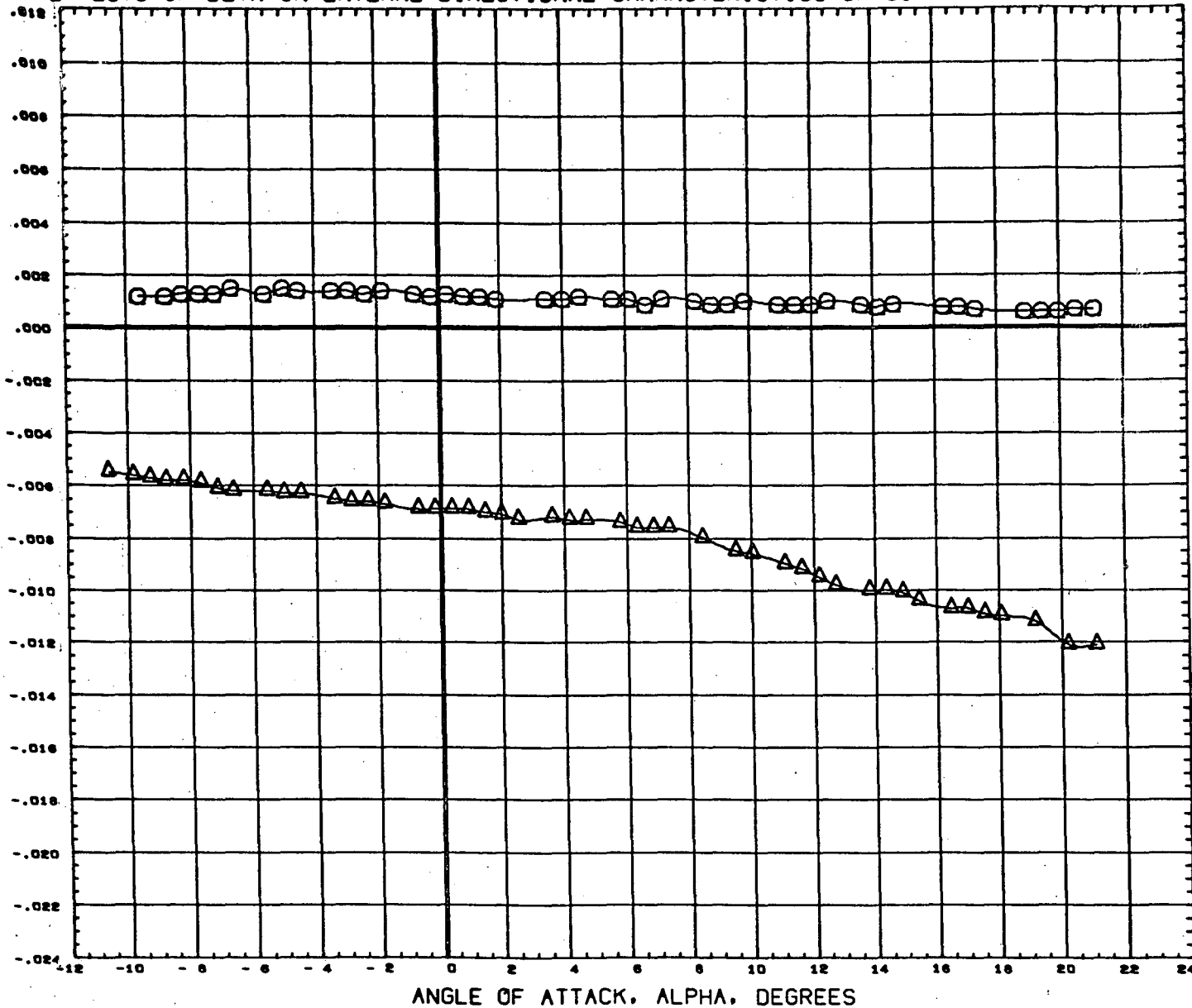
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.51

PAGE 76

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



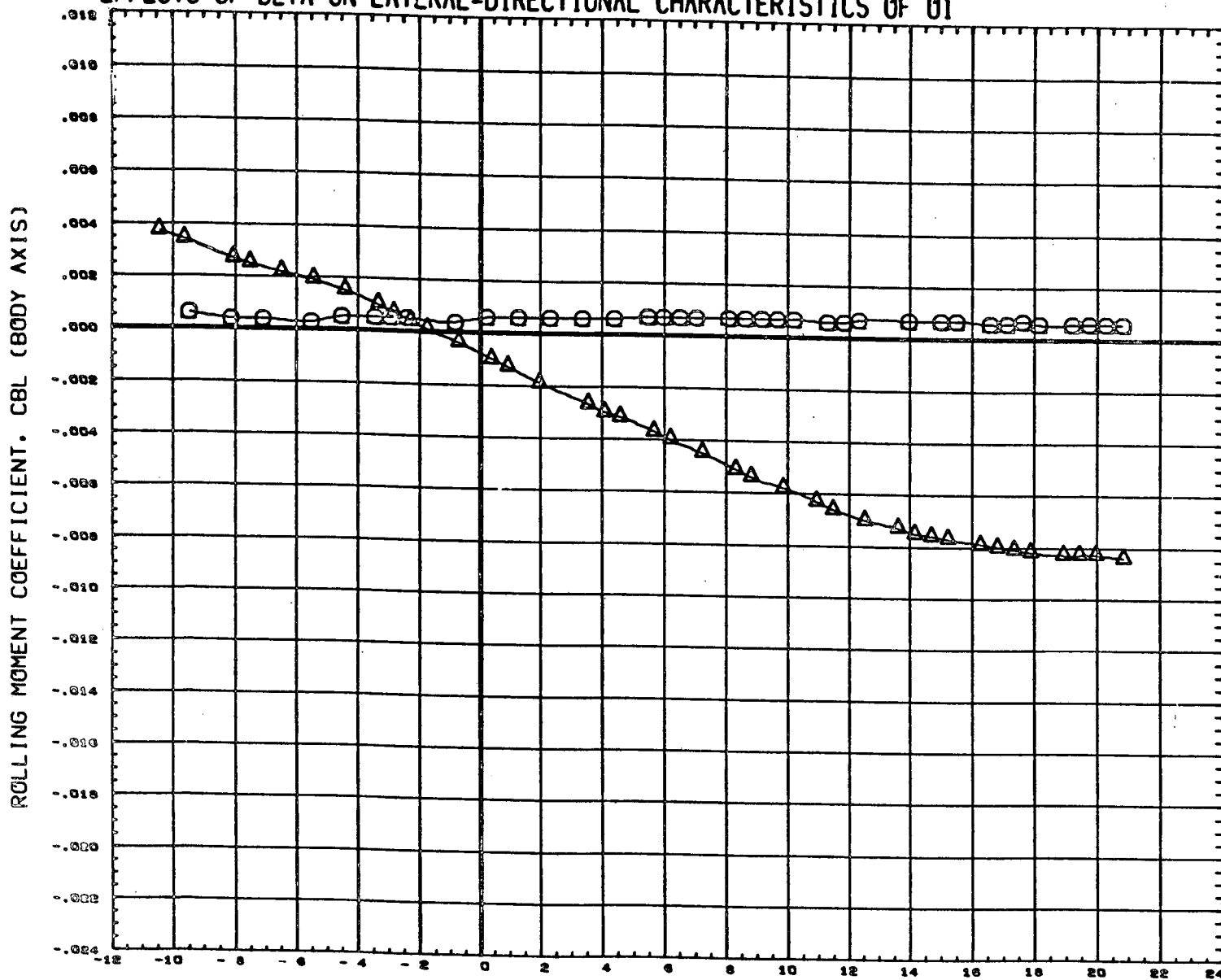
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE 01
(RD7702) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 77

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01



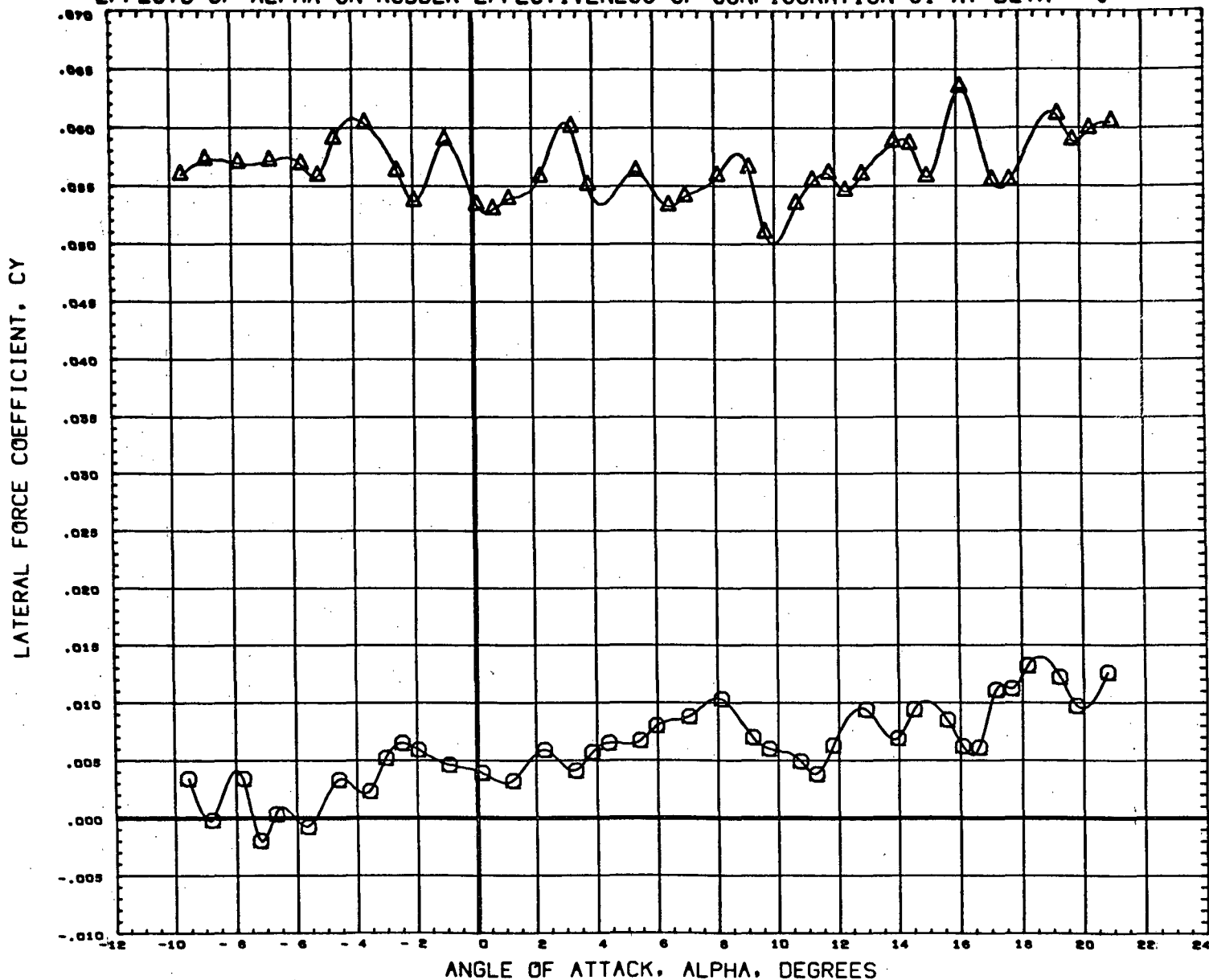
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE 01
(RD7702) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

PAGE 78

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) MDAC S-222 ORBITER ALONE O1
(RD7703) MDAC S-222 ORBITER ALONE O1

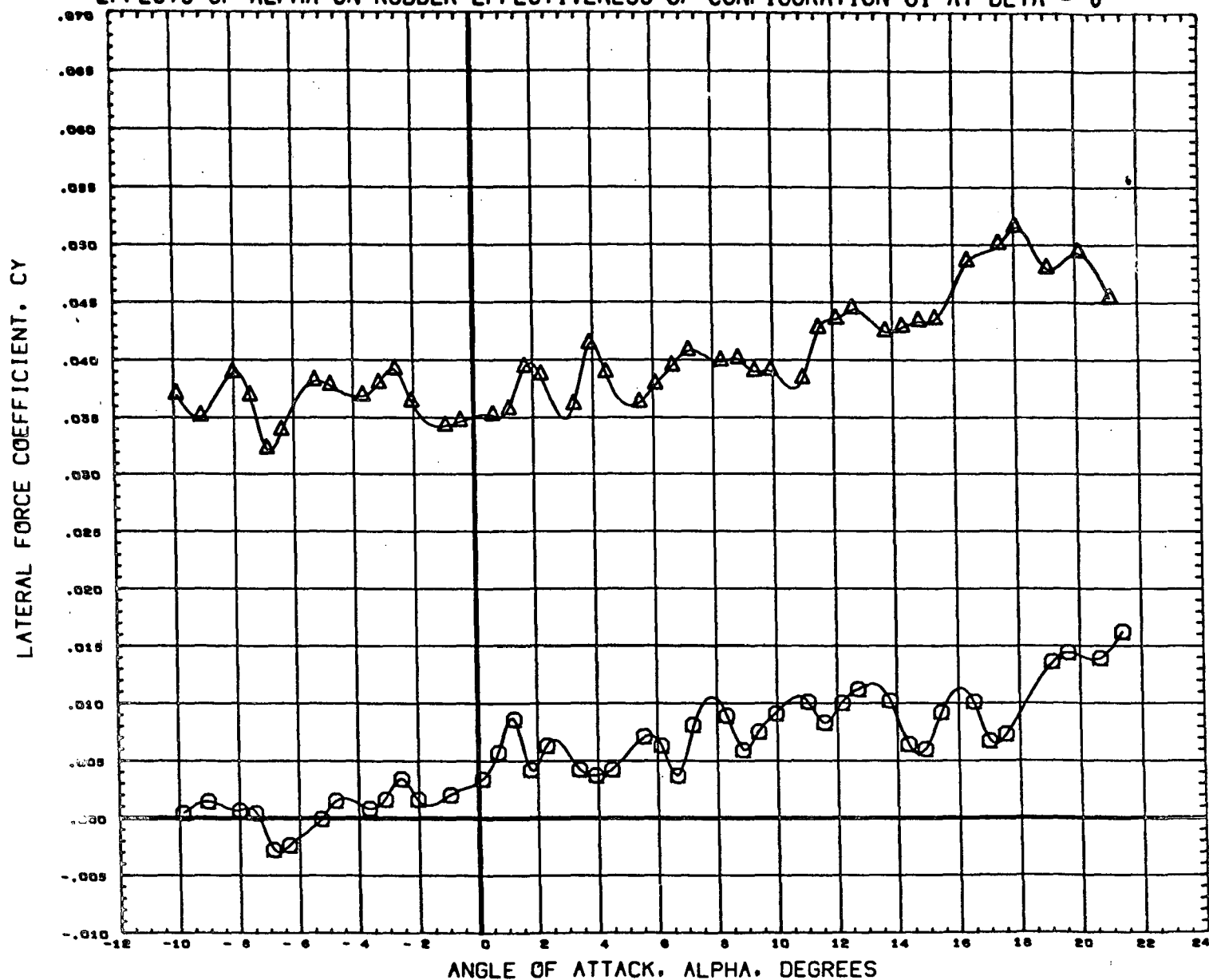
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
0.000 0.000 0.000 10.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .56

PAGE 79

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



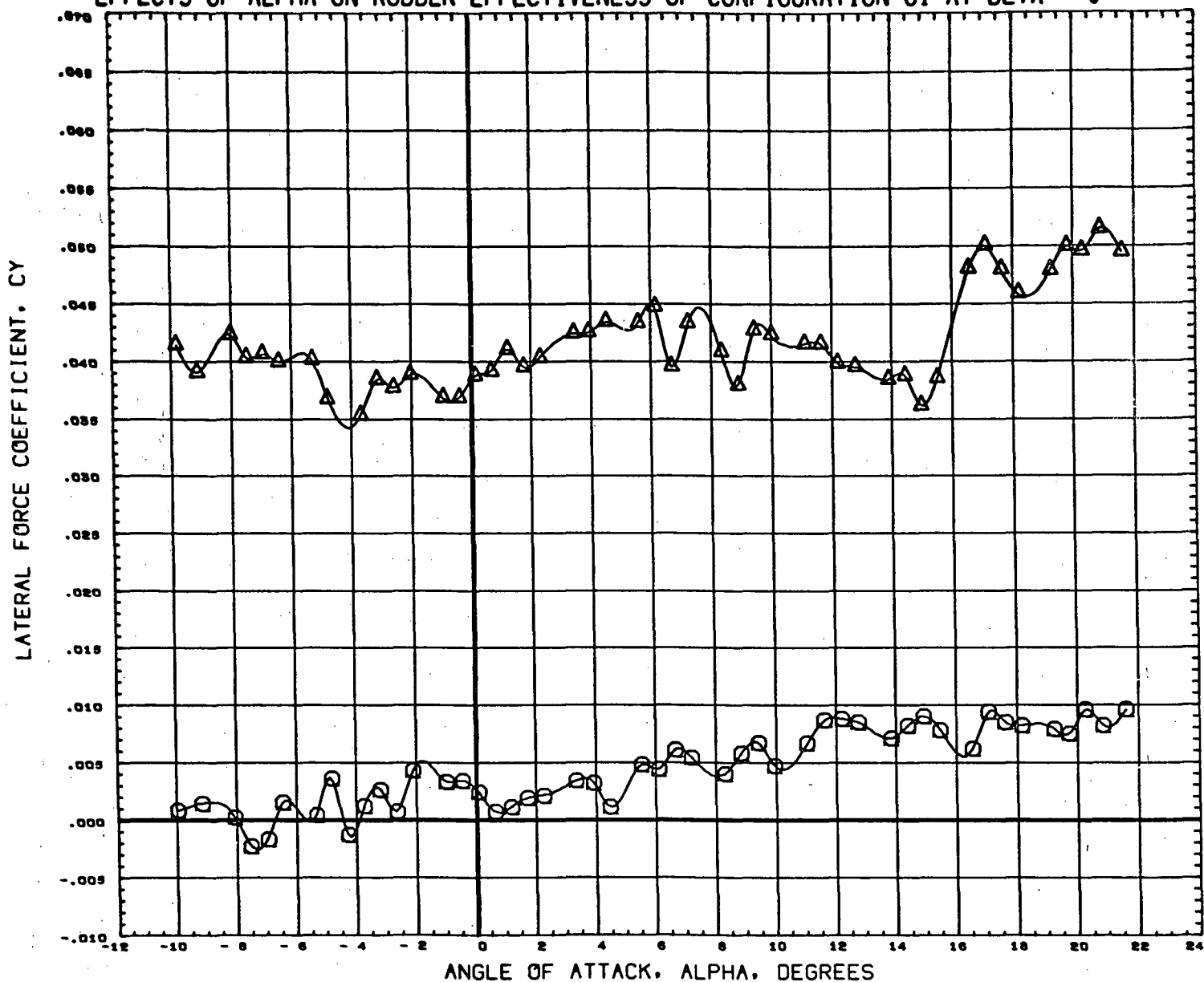
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE 01
 (SD7703) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF	609.5004 IN.
				BREF	682.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 80

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) ○ MDAC S-222 ORBITER ALONE 01
 (SD7703) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF	809.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

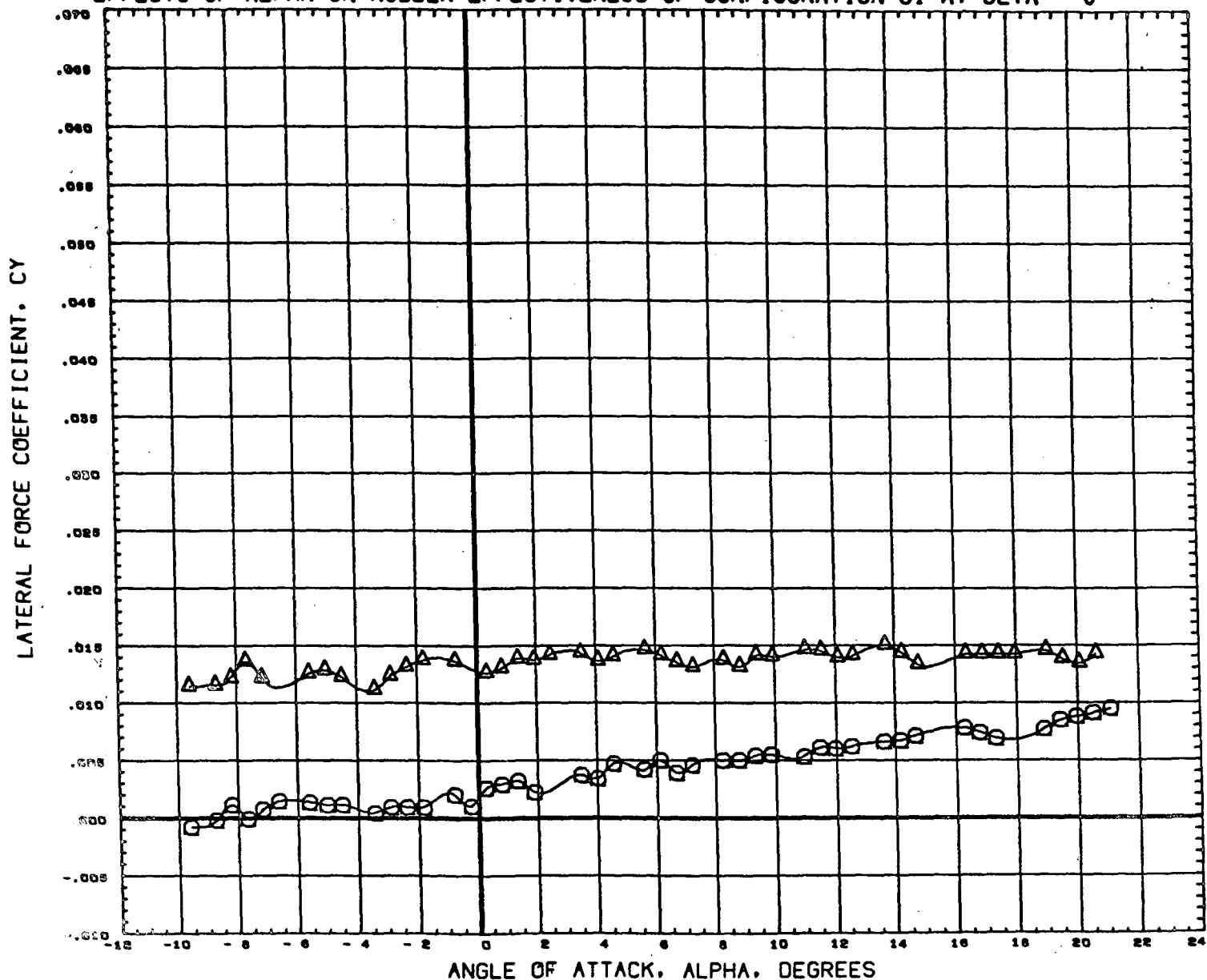
MACH

1.07

PAGE

81

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



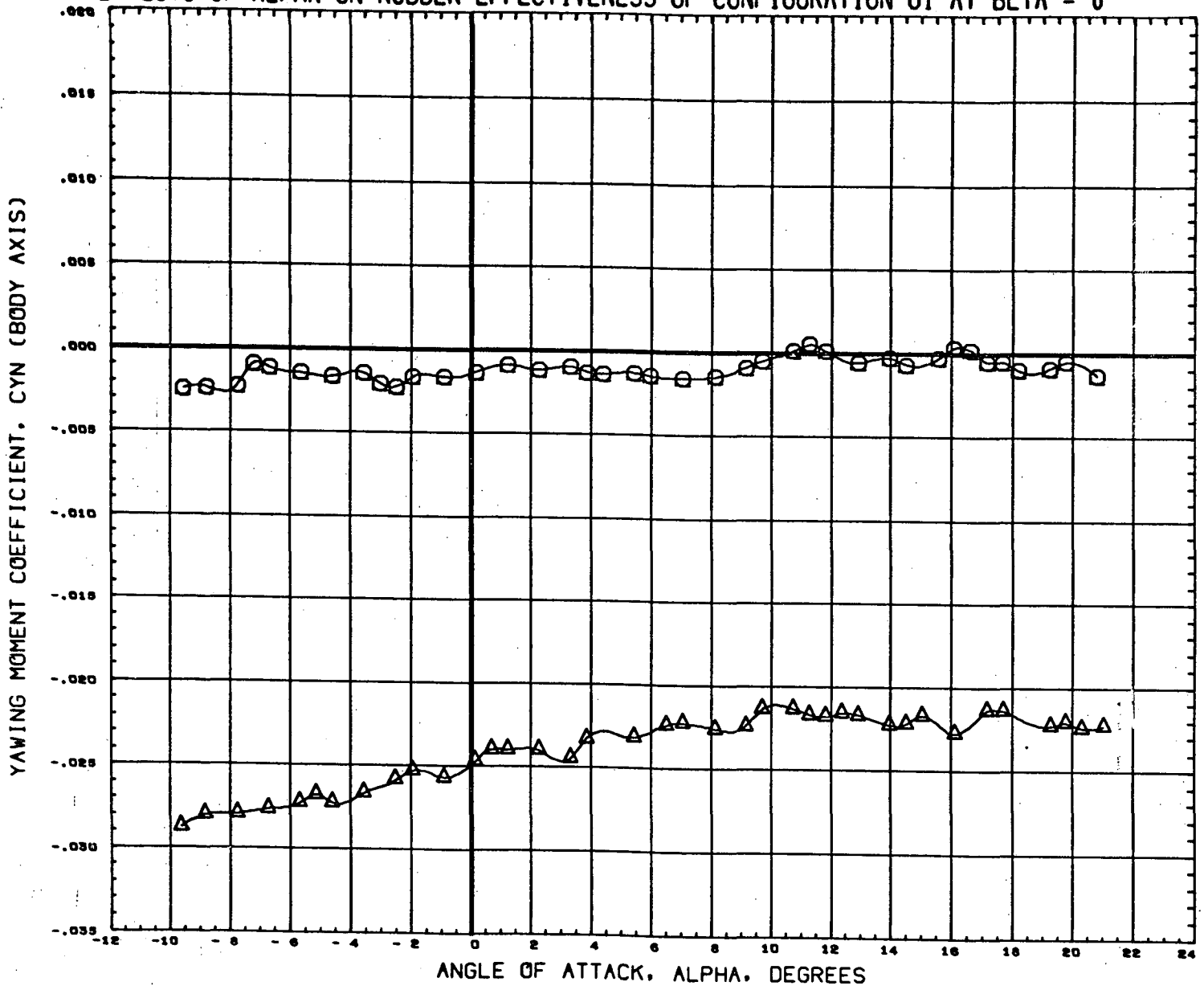
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE O1
 (SD7703) MDAC S-222 ORBITER ALONE O1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3155.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF 609.5004 IN.
				BREF 882.0004 IN.
				XMRP 1068.0040 IN.
				YMRP 0.0000 IN.
				ZMRP 404.0004 IN.
				SCALE 0.0060

MACH 2.20

PAGE 82

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0

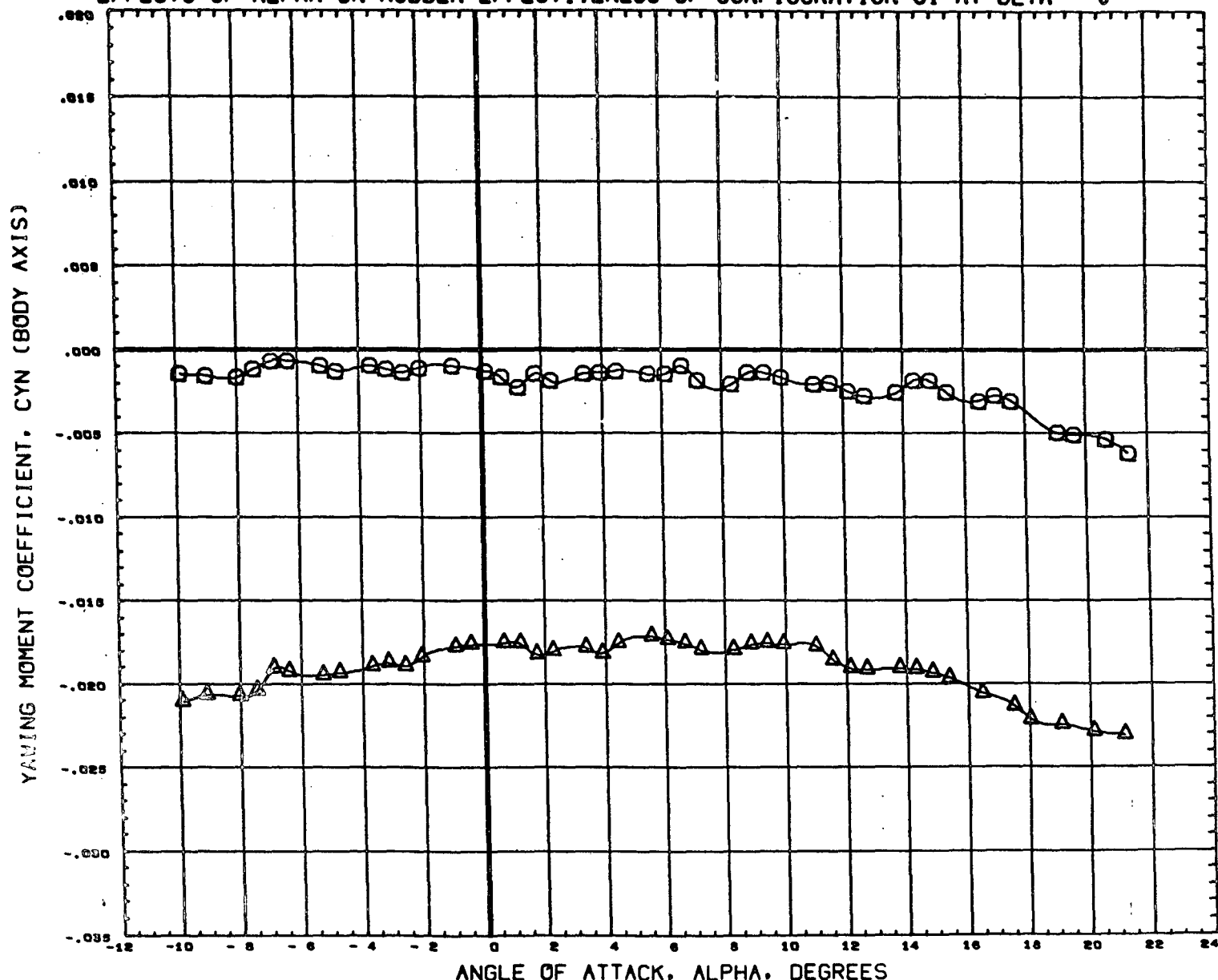


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) ○ MDAC S-222 ORBITER ALONE 01
 (SD7703) △ MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0000

MACH .56

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



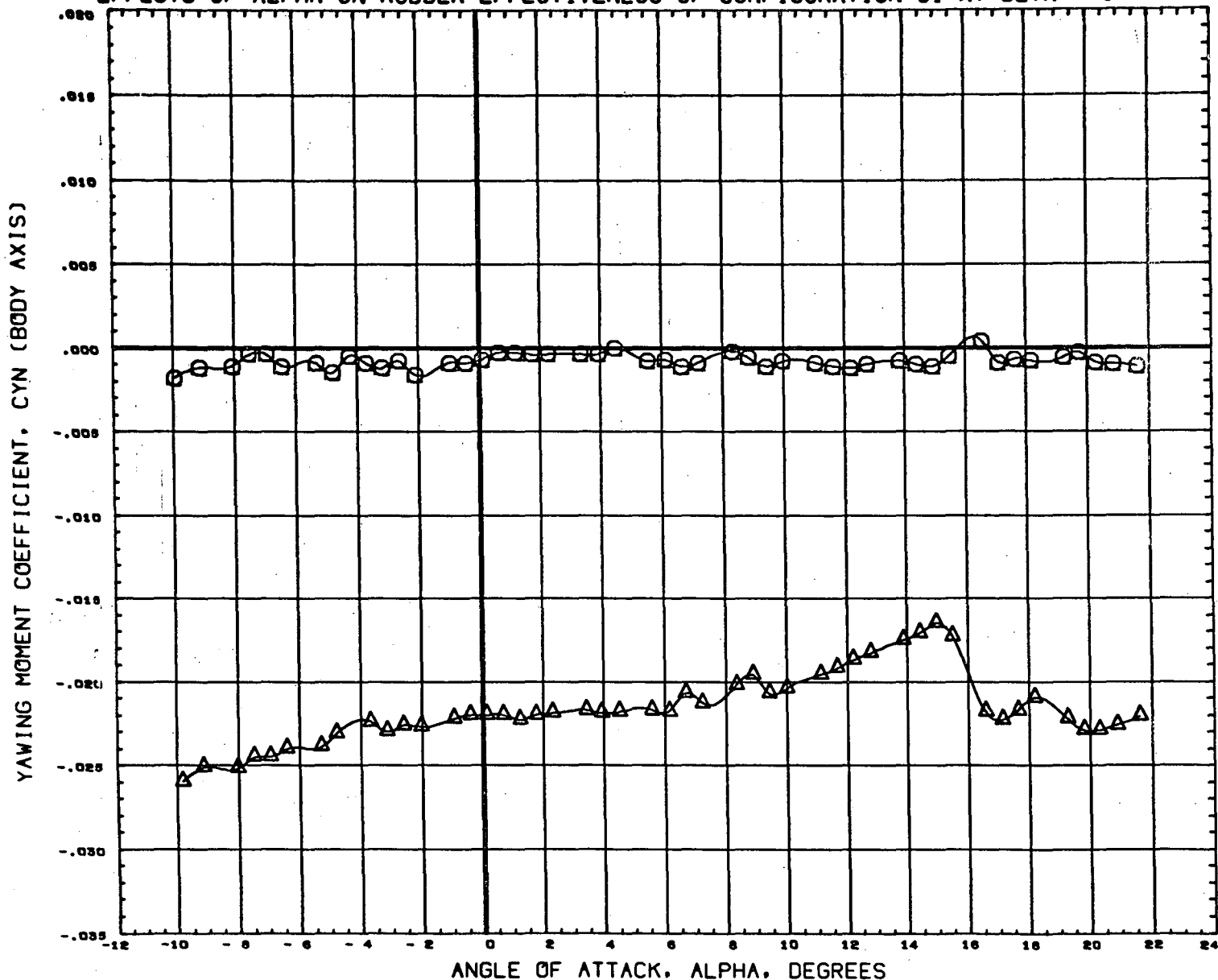
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE 01
 (SD7703) MDAC S-222 ORBITER ALONE 01

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0000

MACH .89

PAGE 84

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE 01
 (SD7703) MDAC S-222 ORBITER ALONE 01

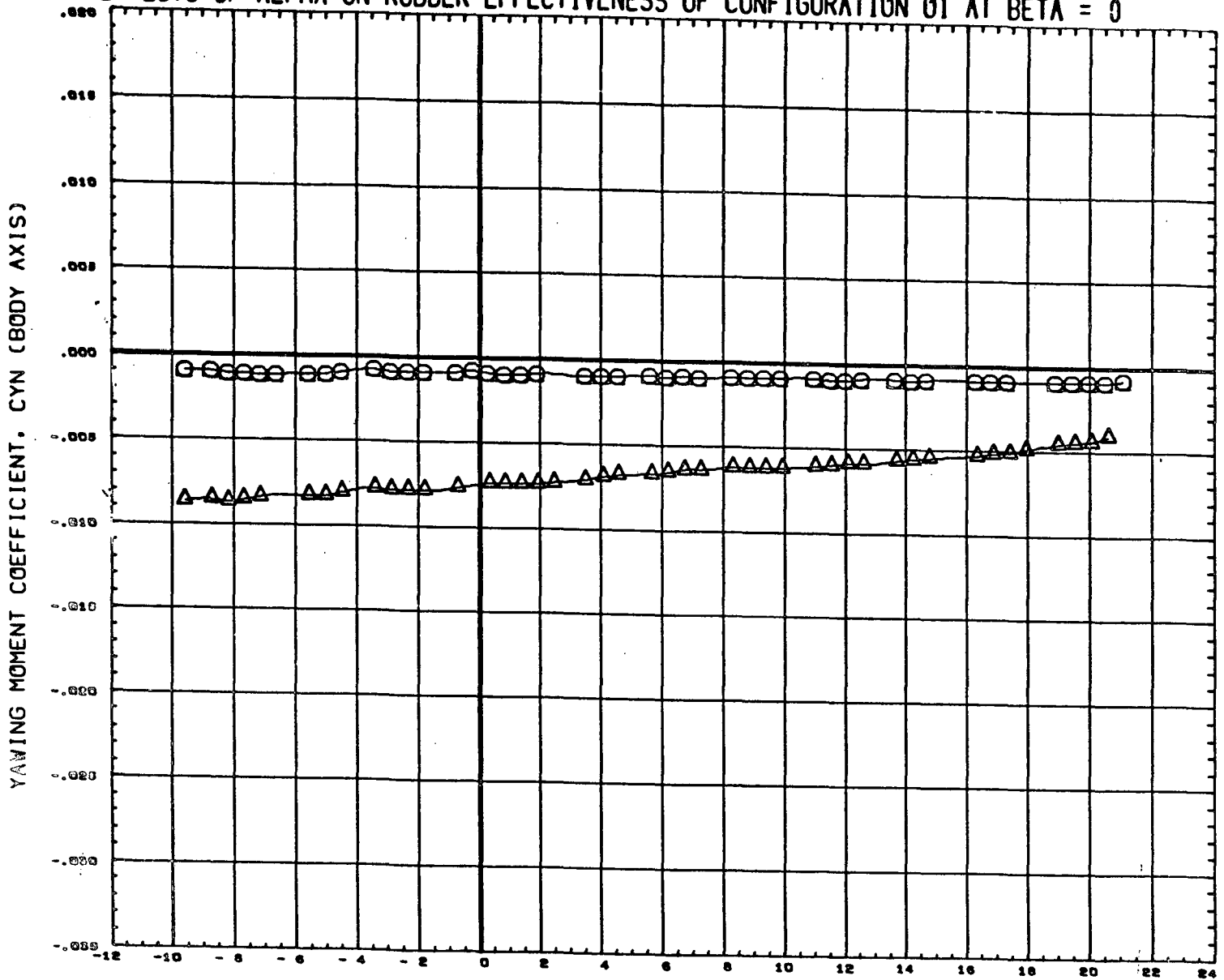
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	10.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	862.0004 IN.
XMRP	1068.0040 IN.
YMRP	0.0000 IN.
ZMRP	404.0004 IN.
SCALE	0.0060

MACH 1.07

PAGE 85

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE 01
 (SD7703) MDAC S-222 ORBITER ALONE 01

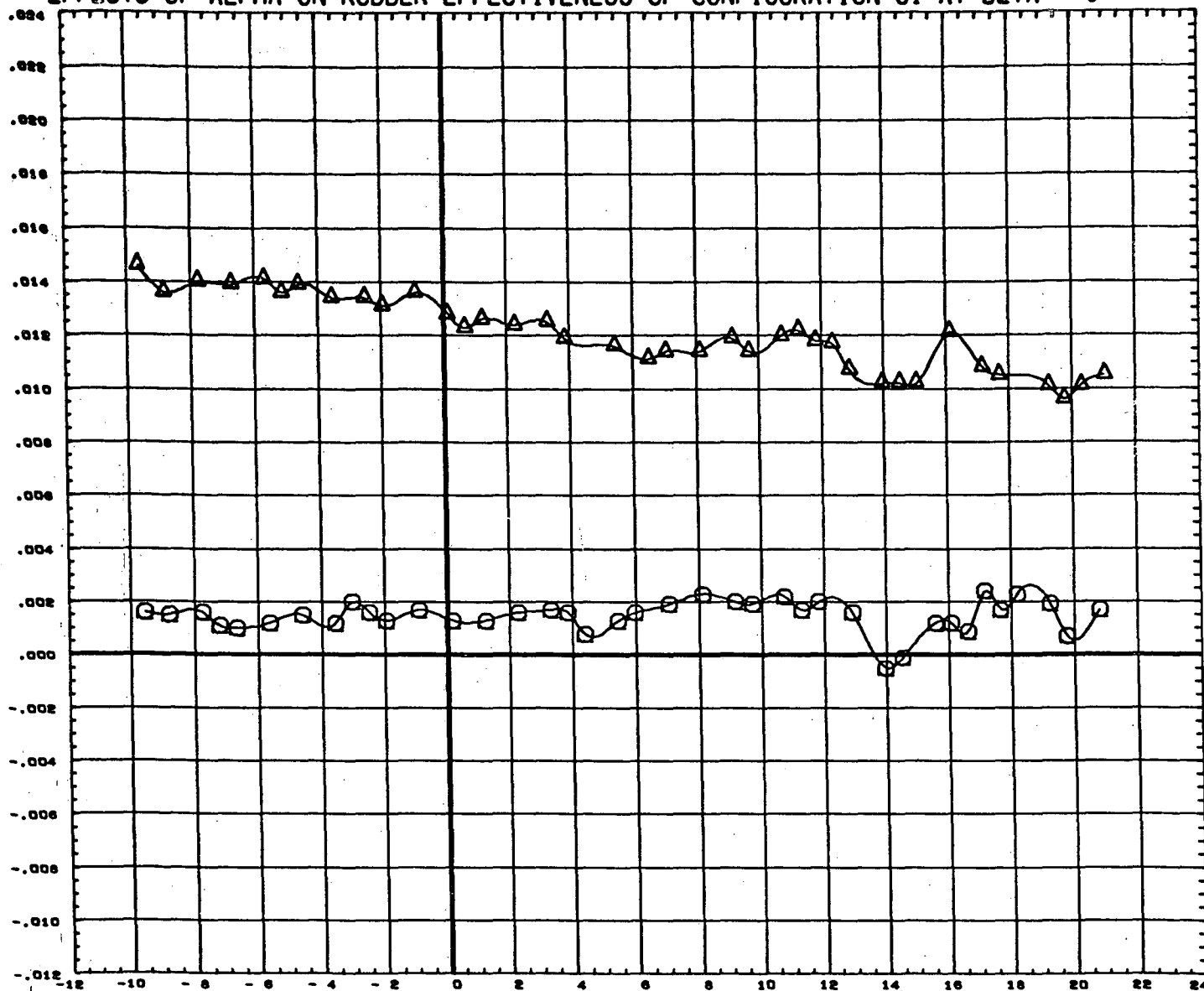
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	10.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0080	

MACH 2.20

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE O1
 (SD7703) MDAC S-222 ORBITER ALONE O1

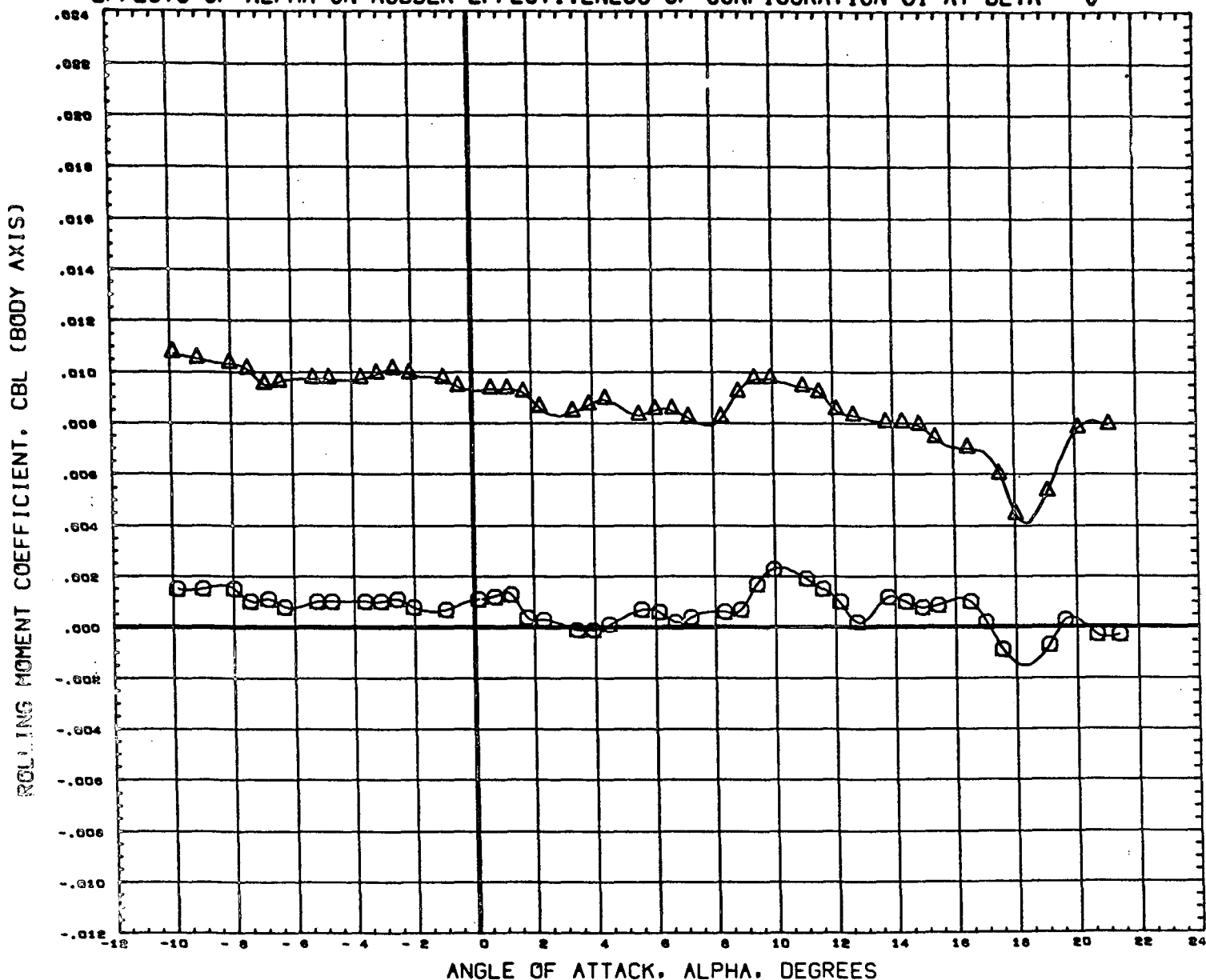
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 10.000

REFERENCE INFORMATION
 SREF 3159.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .56

PAGE 87

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701) MDAC S-222 ORBITER ALONE 01
 (SD7703) MDAC S-222 ORBITER ALONE 01

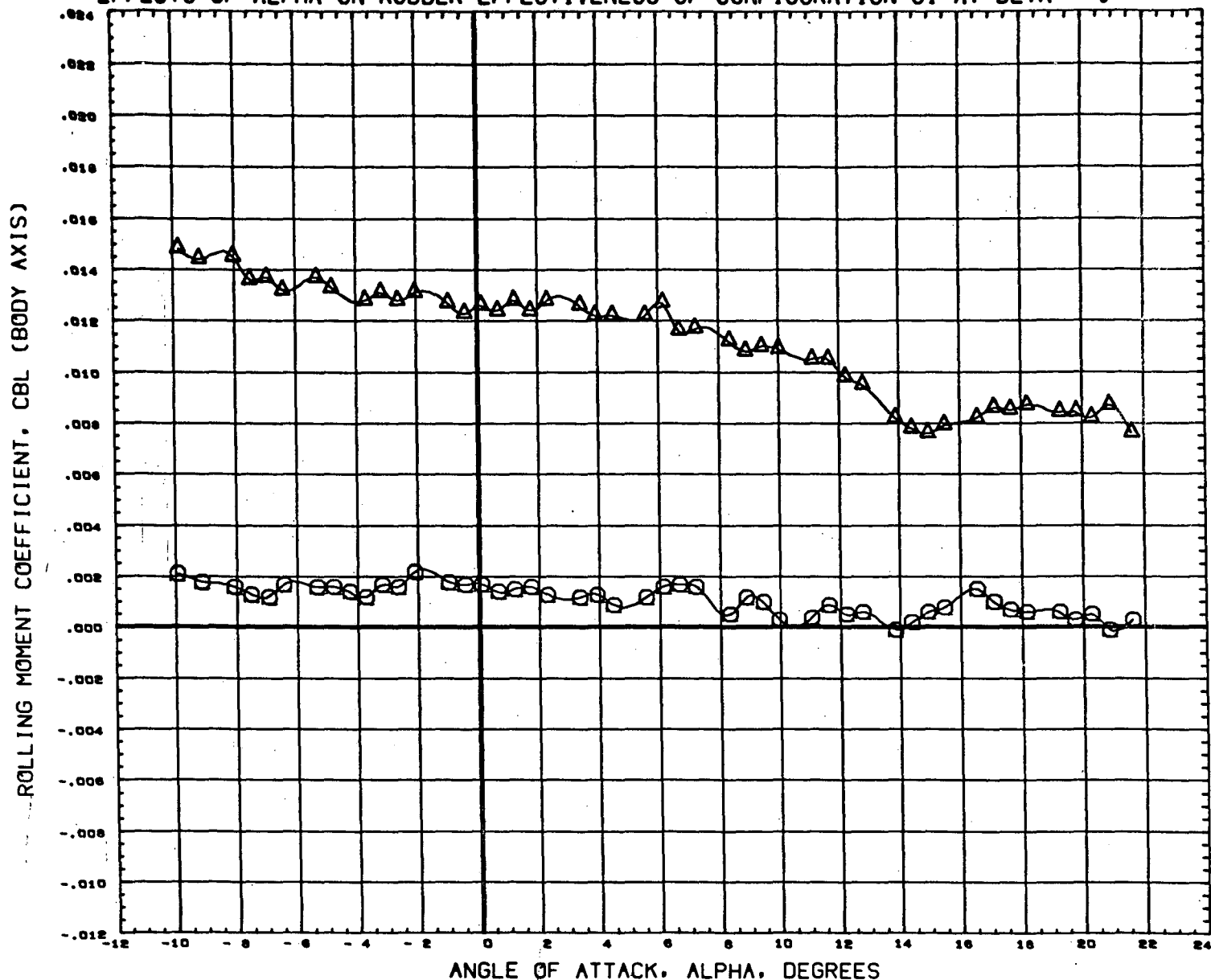
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 10.000

REFERENCE INFORMATION
 SREF 3153.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 662.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 88

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7701) ○ MDAC S-222 ORBITER ALONE 01
(SD7703) △ MDAC S-222 ORBITER ALONE 01

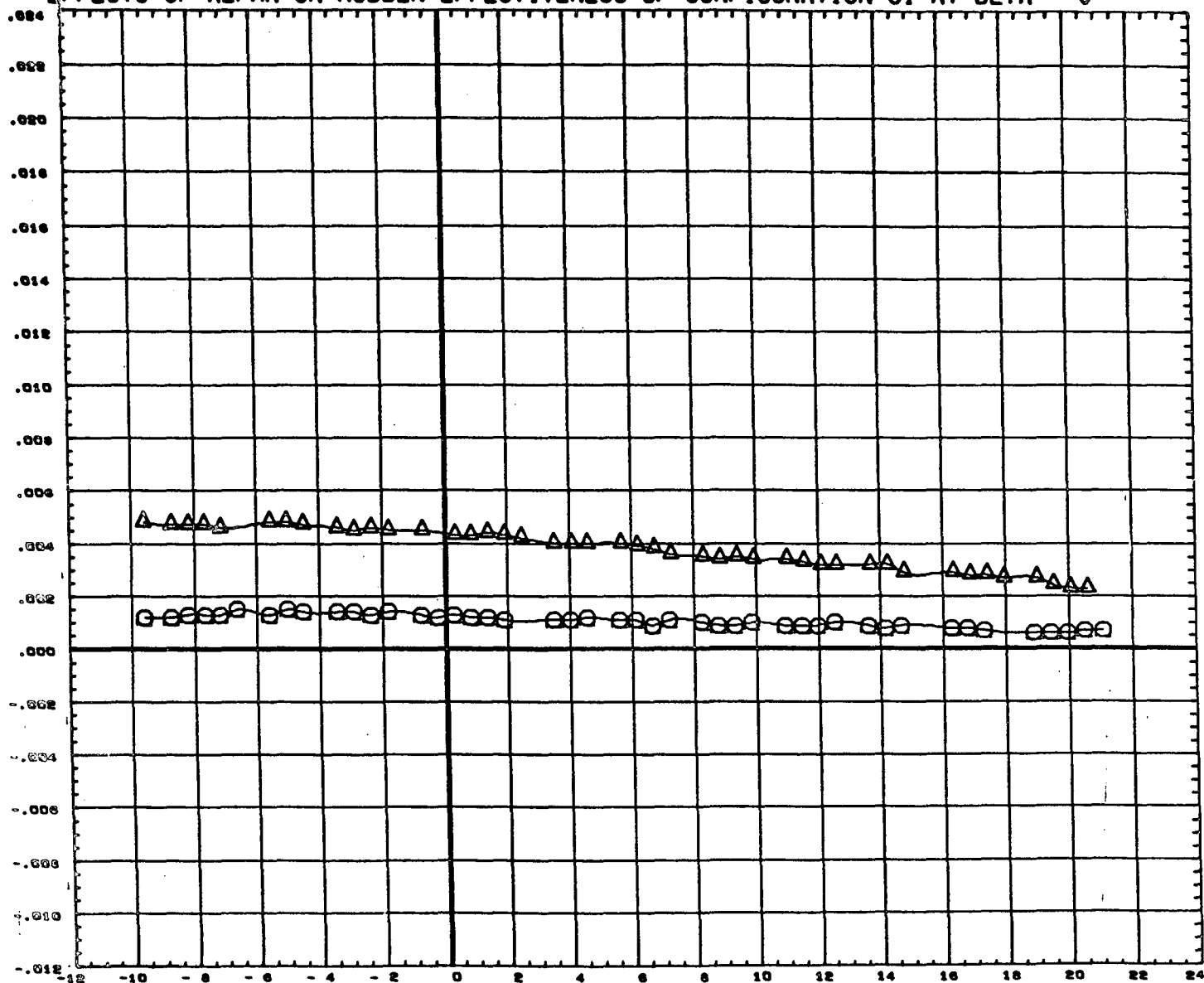
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1088.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.07



PAGE 89

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01 AT BETA = 0

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7701)  MDAC S-222 ORBITER ALONE 01
 (SD7703)  MDAC S-222 ORBITER ALONE 01

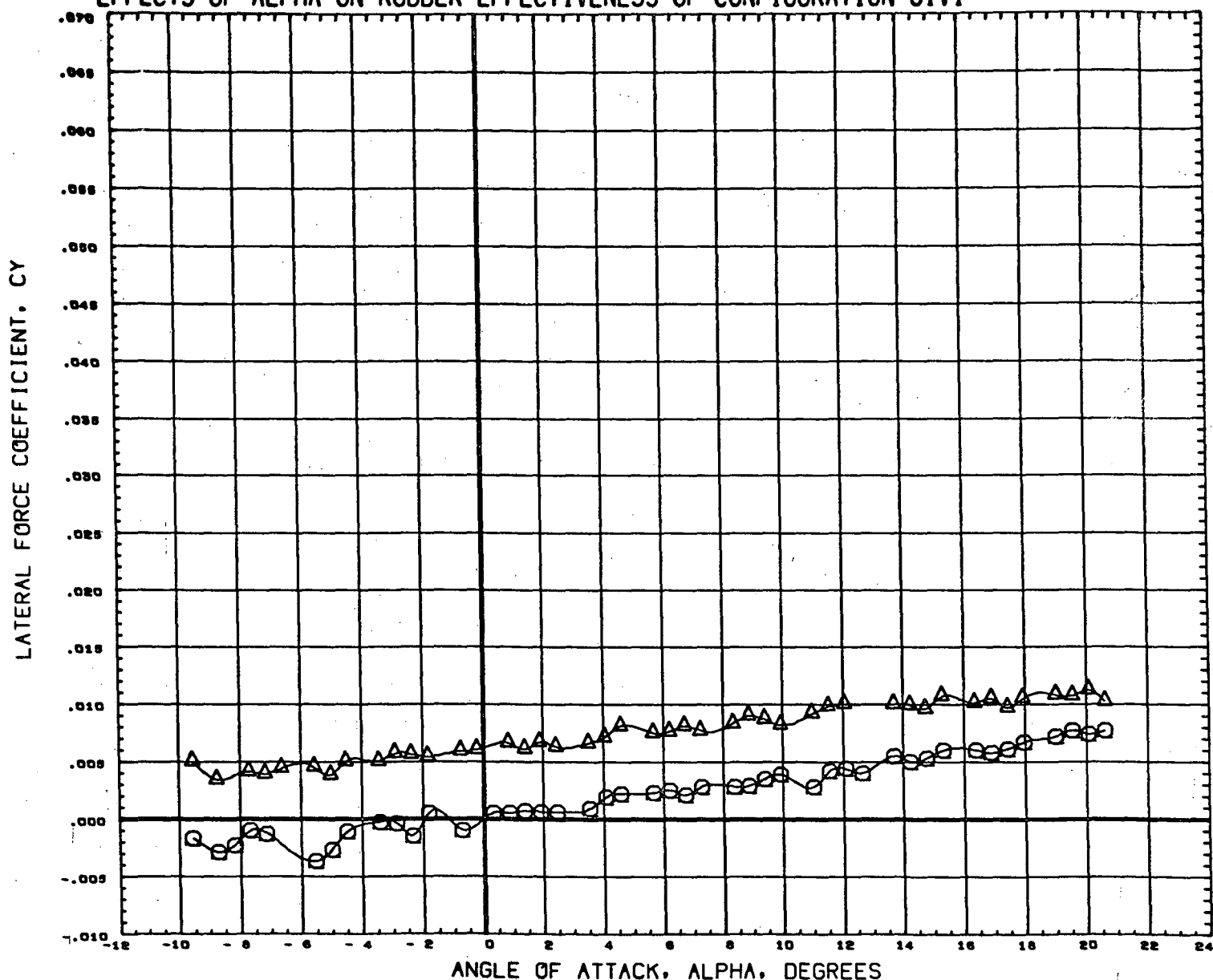
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	10.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 90

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01V1



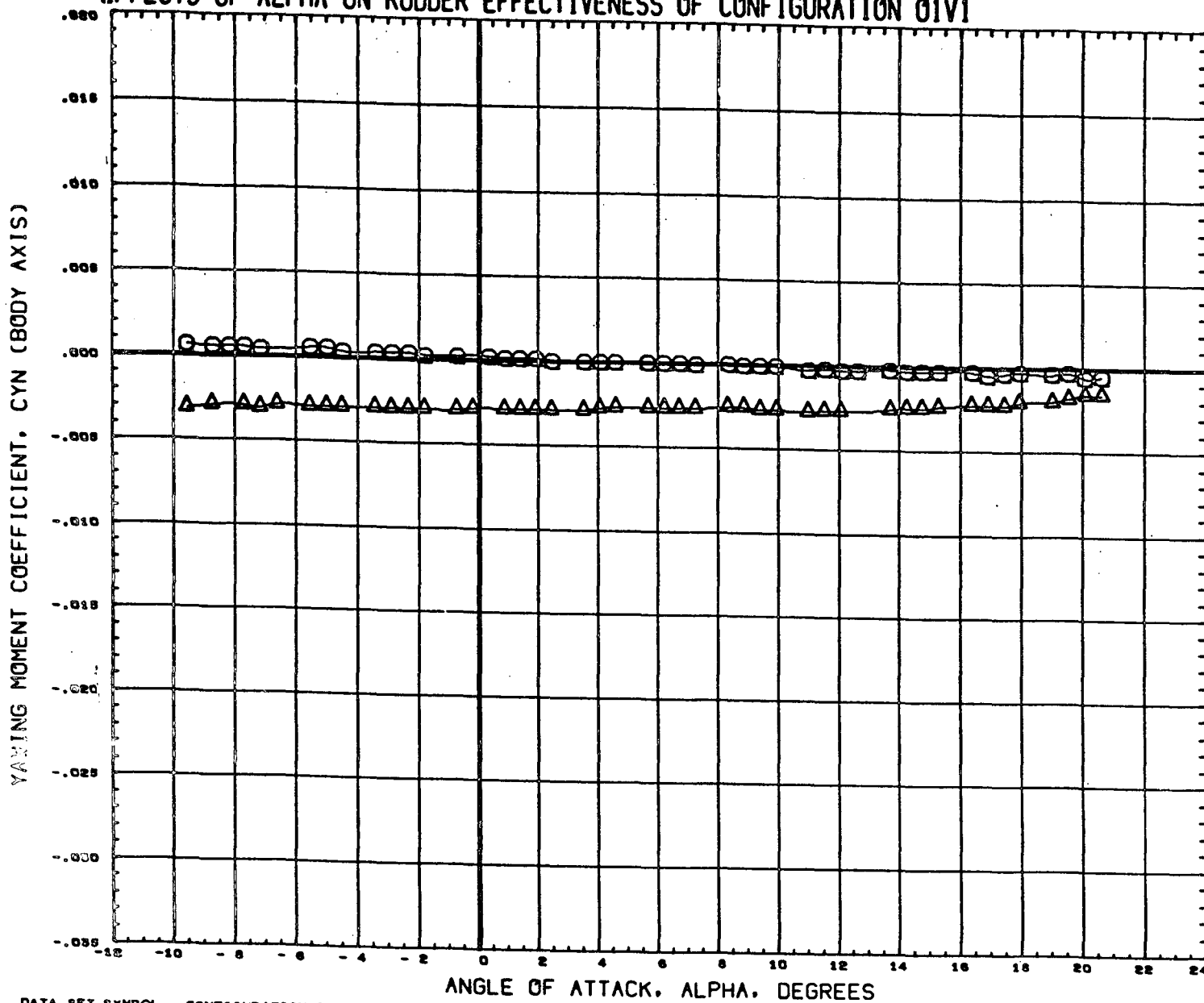
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) ○ MDAC S-222 ORBITER ALONE 01V1
(RD7706) △ MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
0.000	0.000	0.000	10.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 2.20

PAGE 91

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) MDAC S-222 ORBITER ALONE 01V1
(RD7706) MDAC S-222 ORBITER ALONE 01V1

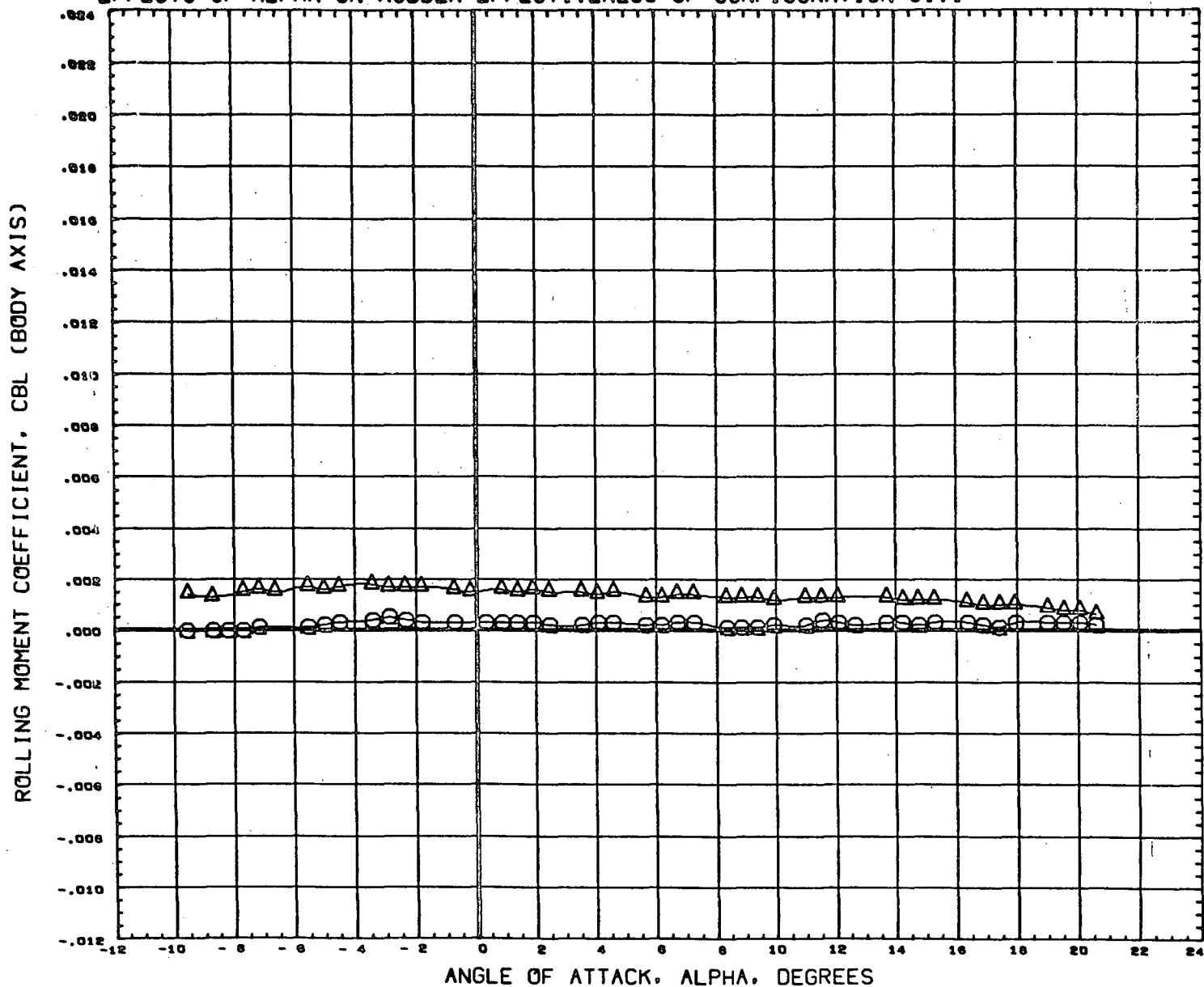
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
0.000 0.000 0.000 10.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 92

EFFECTS OF ALPHA ON RUDDER EFFECTIVENESS OF CONFIGURATION 01V1



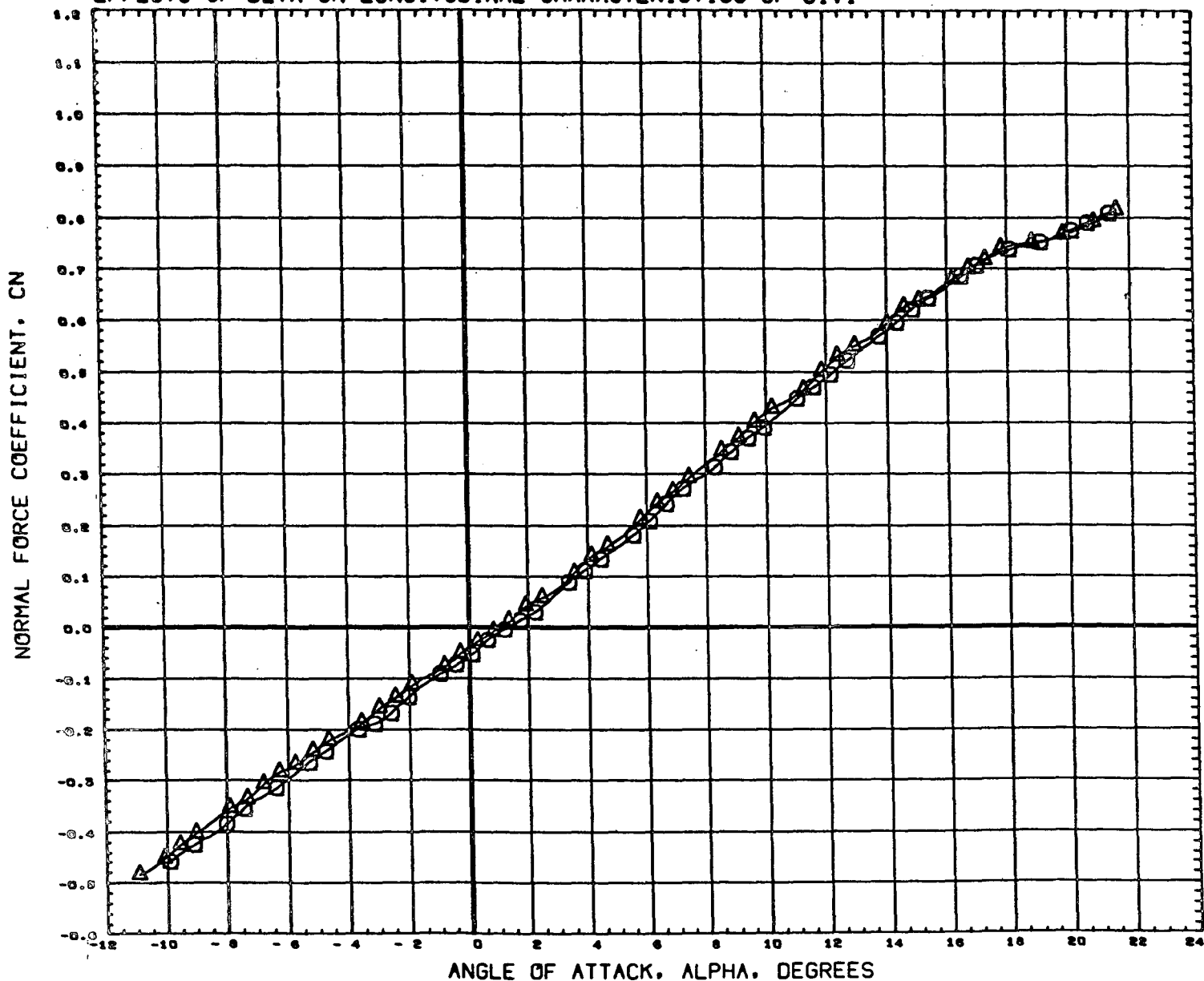
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) Q MDAC S-222 ORBITER ALONE 01V1
(RD7706) A MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3133.3040 SQ.FT.
0.000	0.000	0.000	10.000	LREF	609.9004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0000

MACH 2.20

PAGE 93

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7704)	MDAC S-222 ORBITER ALONE O1V1
(CD7705)	MDAC S-222 ORBITER ALONE O1V1

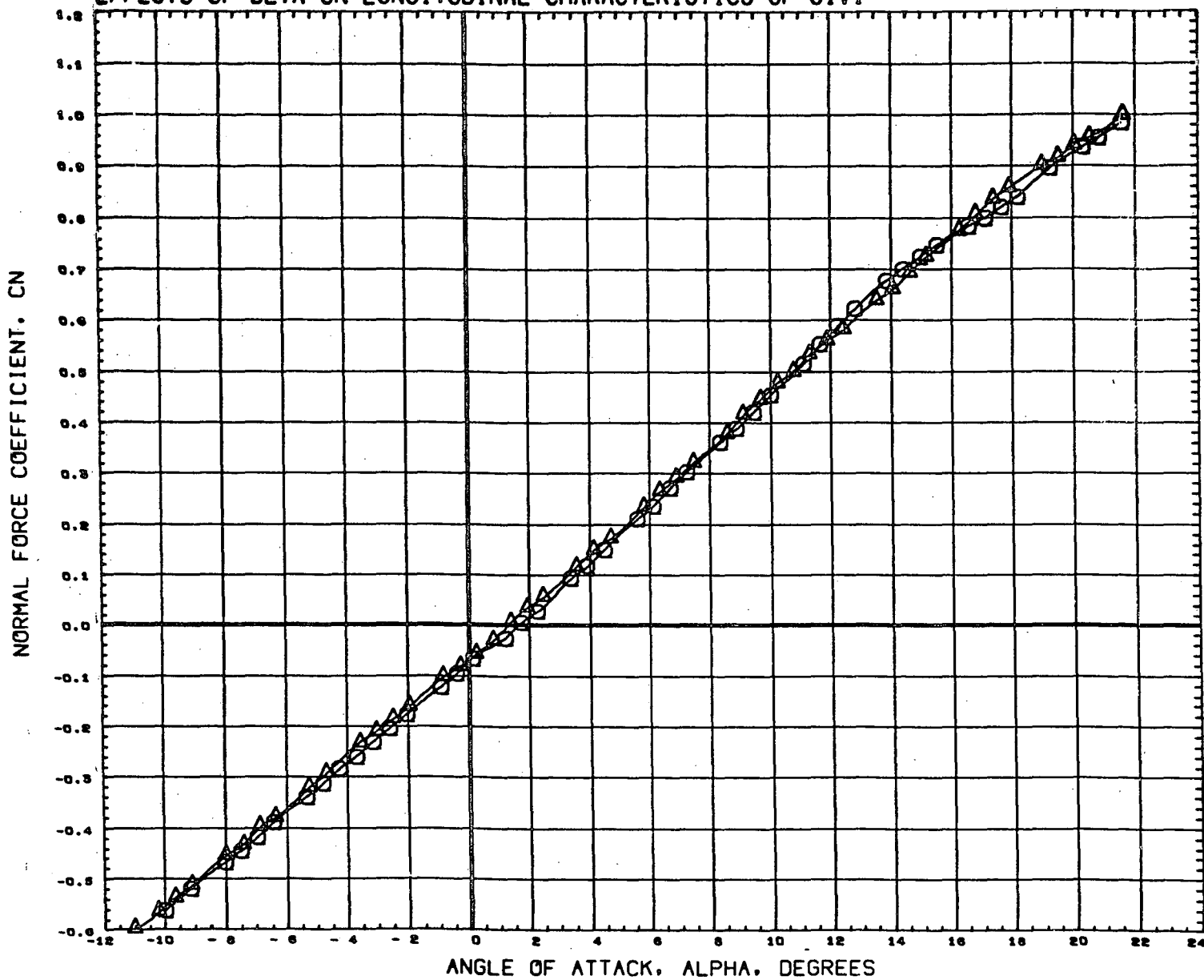
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 94

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7704)	MDAC S-222 ORBITER ALONE O1V1
(CD7705)	MDAC S-222 ORBITER ALONE O1V1

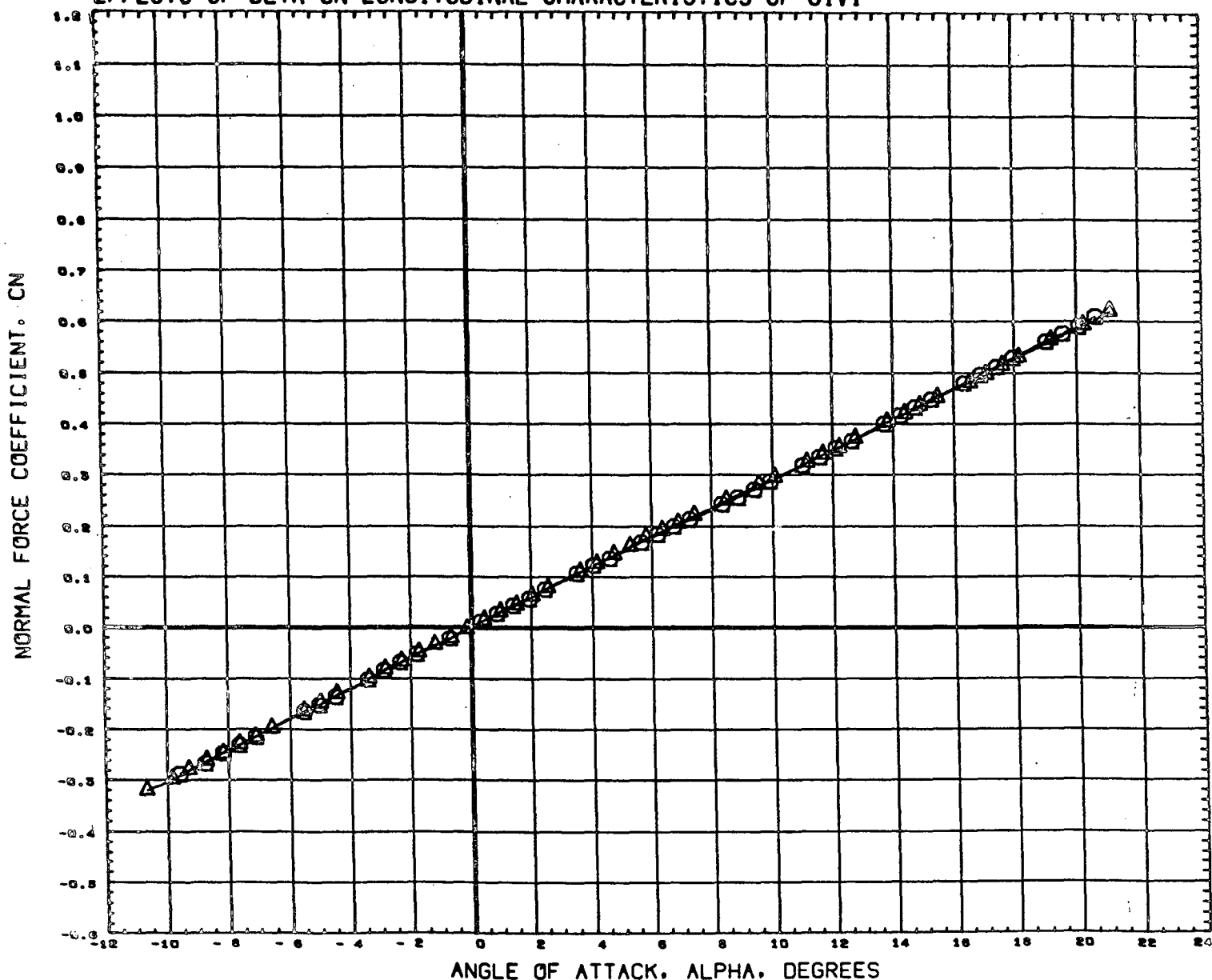
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000



REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 95

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



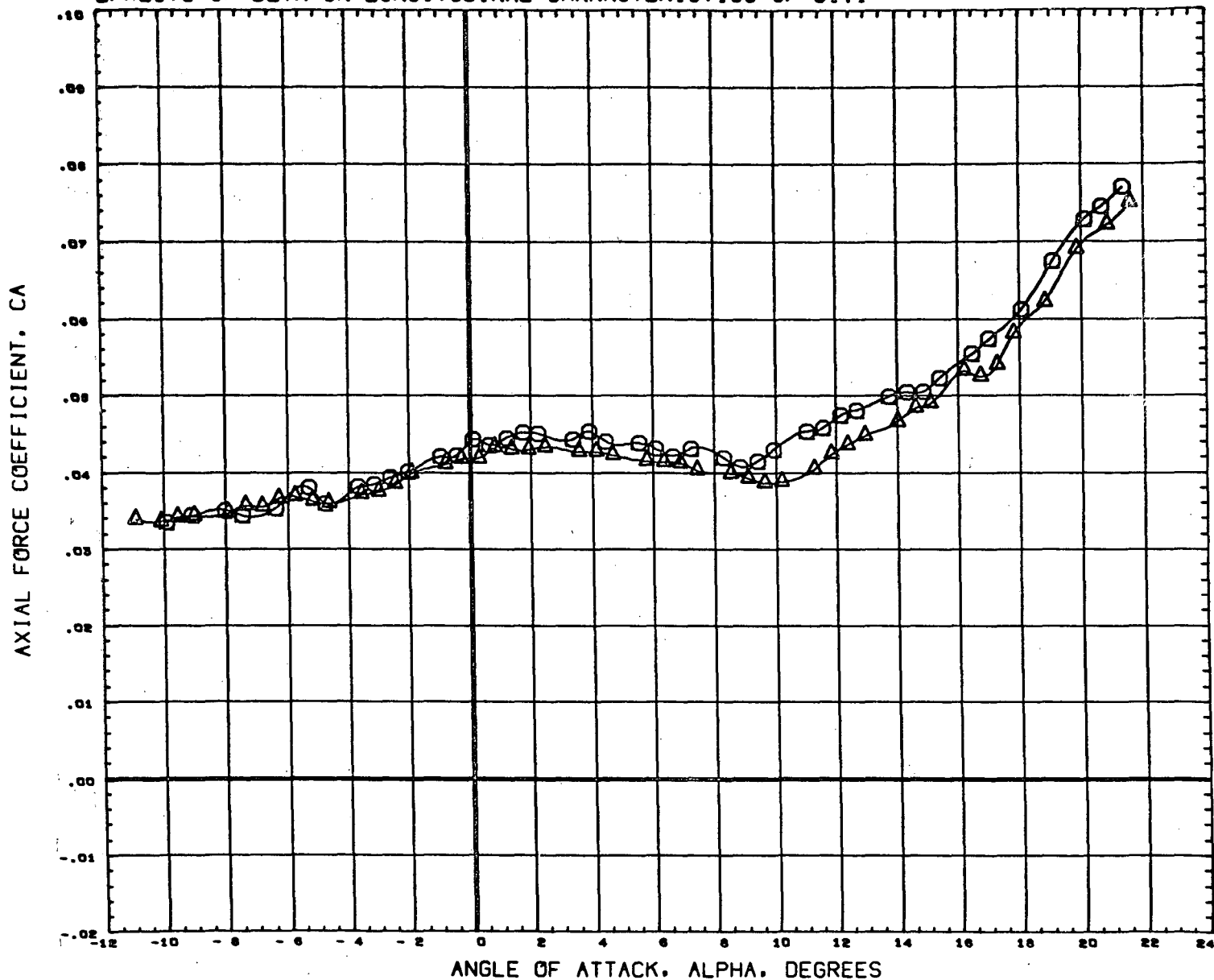
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704)  MDAC S-222 ORBITER ALONE O1V1
 (CD7705)  MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3159.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0080	

MACH 2.20

PAGE 96

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) MDAC S-222 ORBITER ALONE O1V1
(CD7705) MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

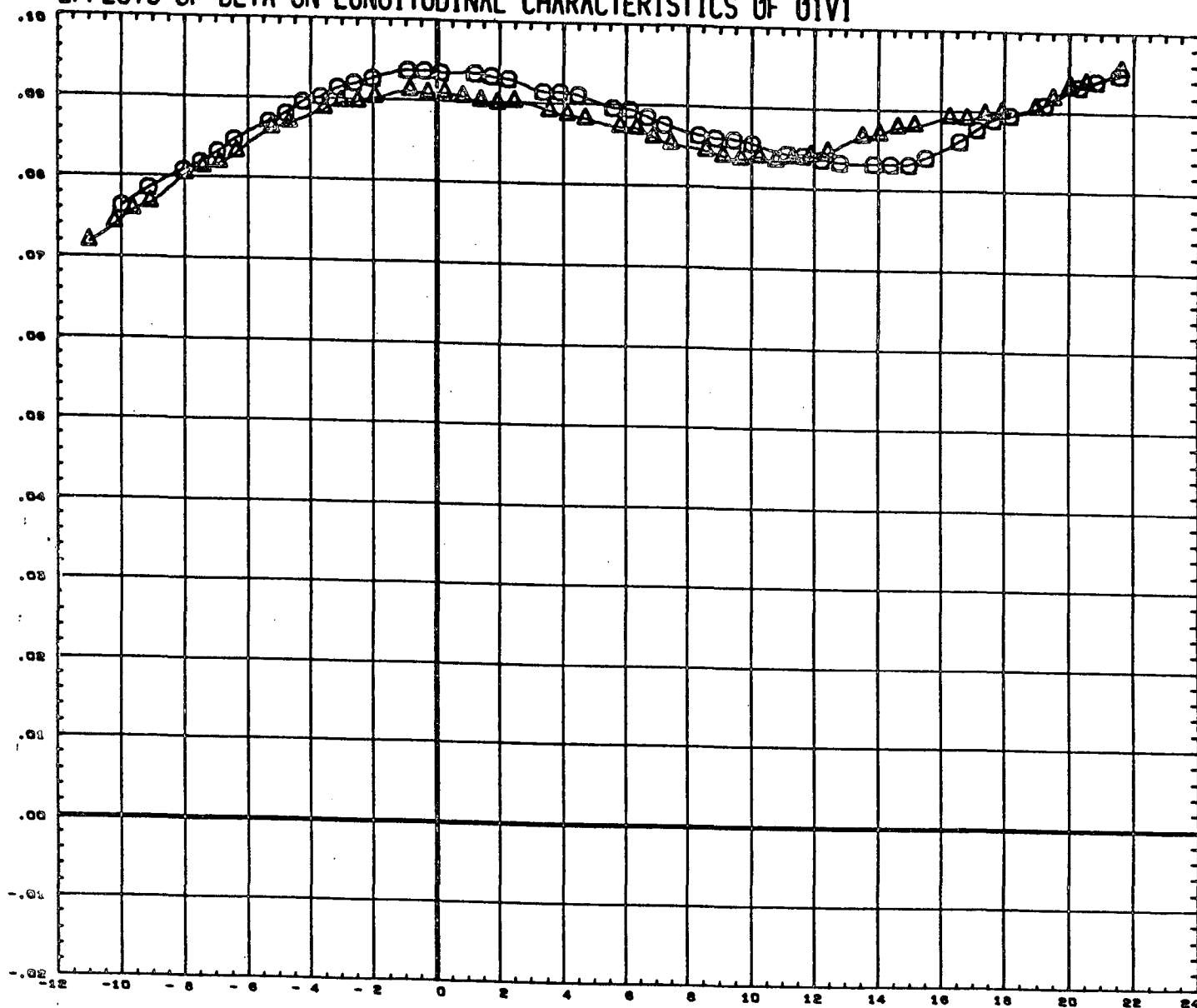
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	809.5004	IN.
BREF	882.0004	IN.
XMRF	1066.0040	IN.
YMRF	0.0000	IN.
ZMRF	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 97

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1

AXIAL FORCE COEFFICIENT, CA



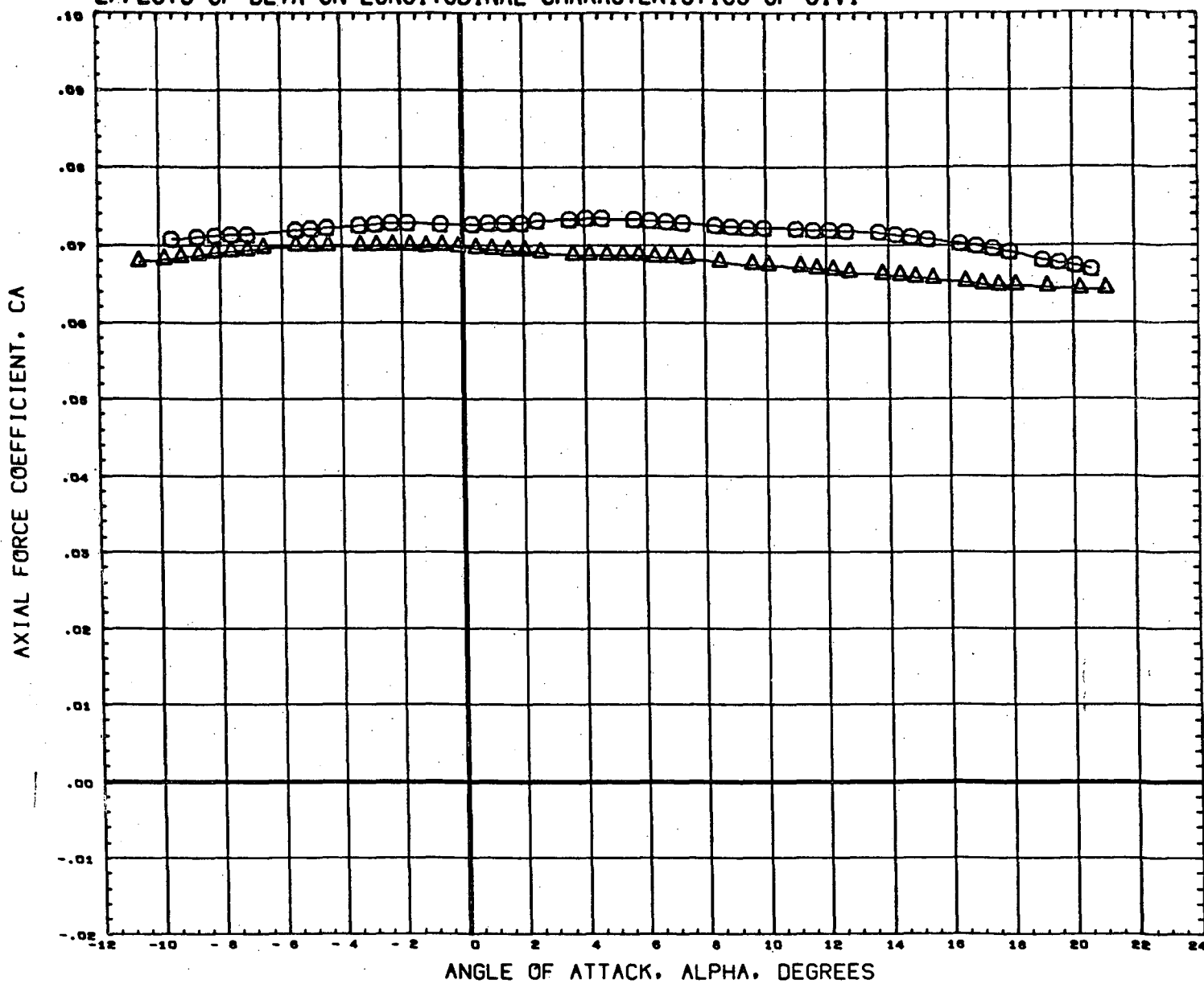
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) O MDAC S-222 ORBITER ALONE O1V1
 (CD7705) Δ MDAC S-222 ORBITER ALONE O1V1

ANGLE OF ATTACK, ALPHA, DEGREES

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) ○ MDAC S-222 ORBITER ALONE O1V1
 (CD7705) Δ MDAC S-222 ORBITER ALONE O1V1

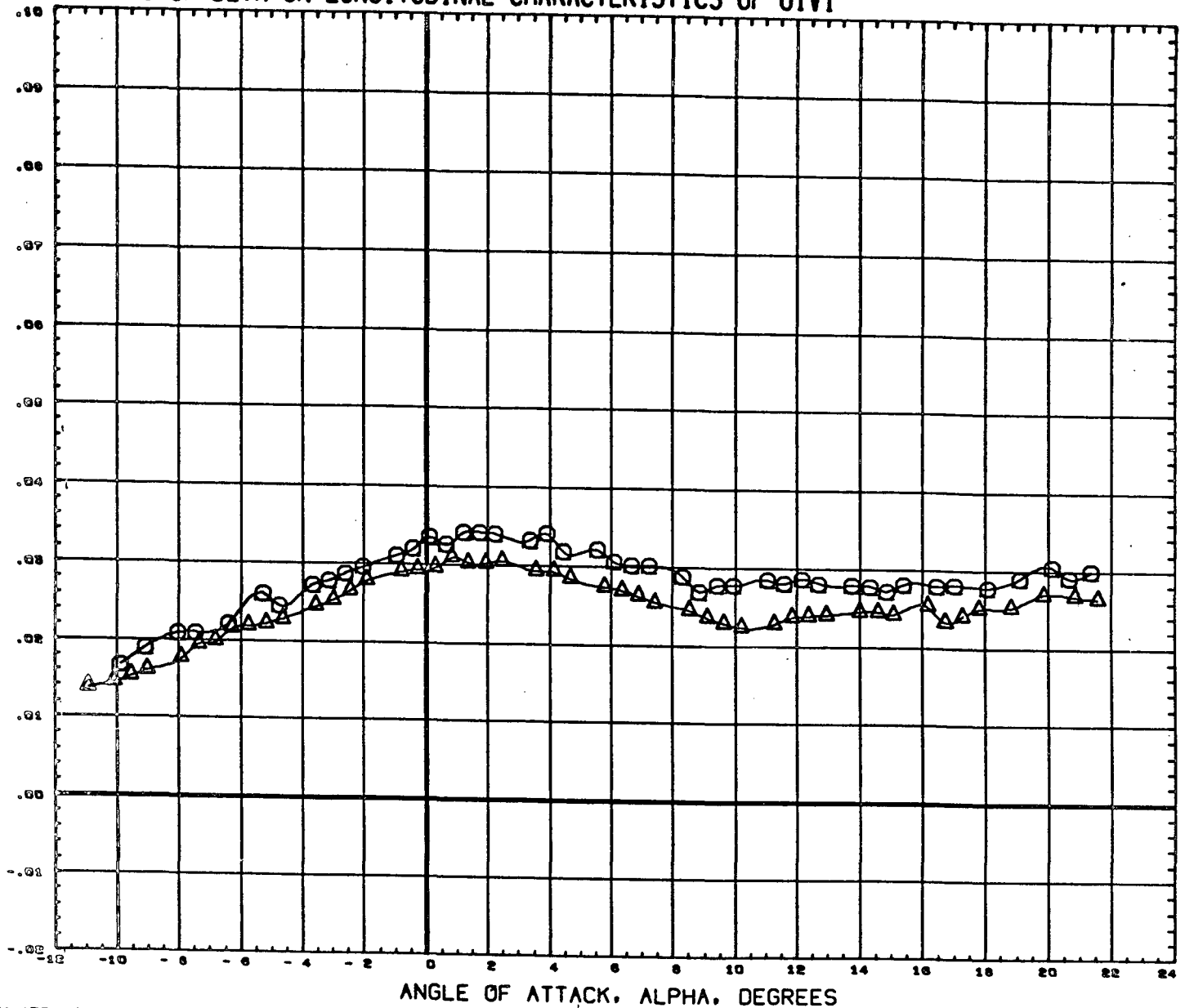
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 99

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) ○ MDAC S-222 ORBITER ALONE O1V1
(CD7705) Δ MDAC S-222 ORBITER ALONE O1V1

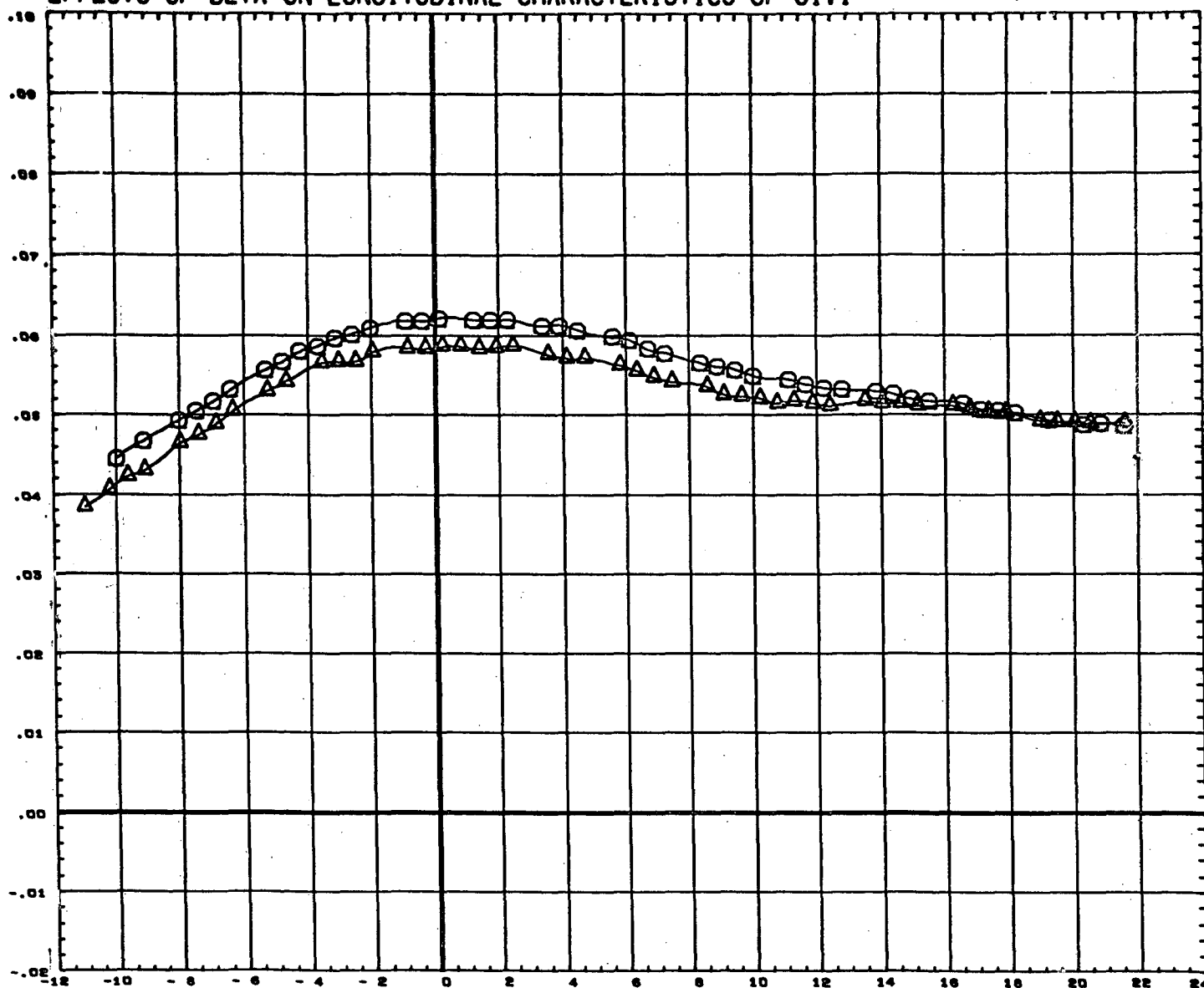
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH .89

PAGE 100

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) ○ MDAC S-222 ORBITER ALONE 01V1
 (CD7705) Δ MDAC S-222 ORBITER ALONE 01V1

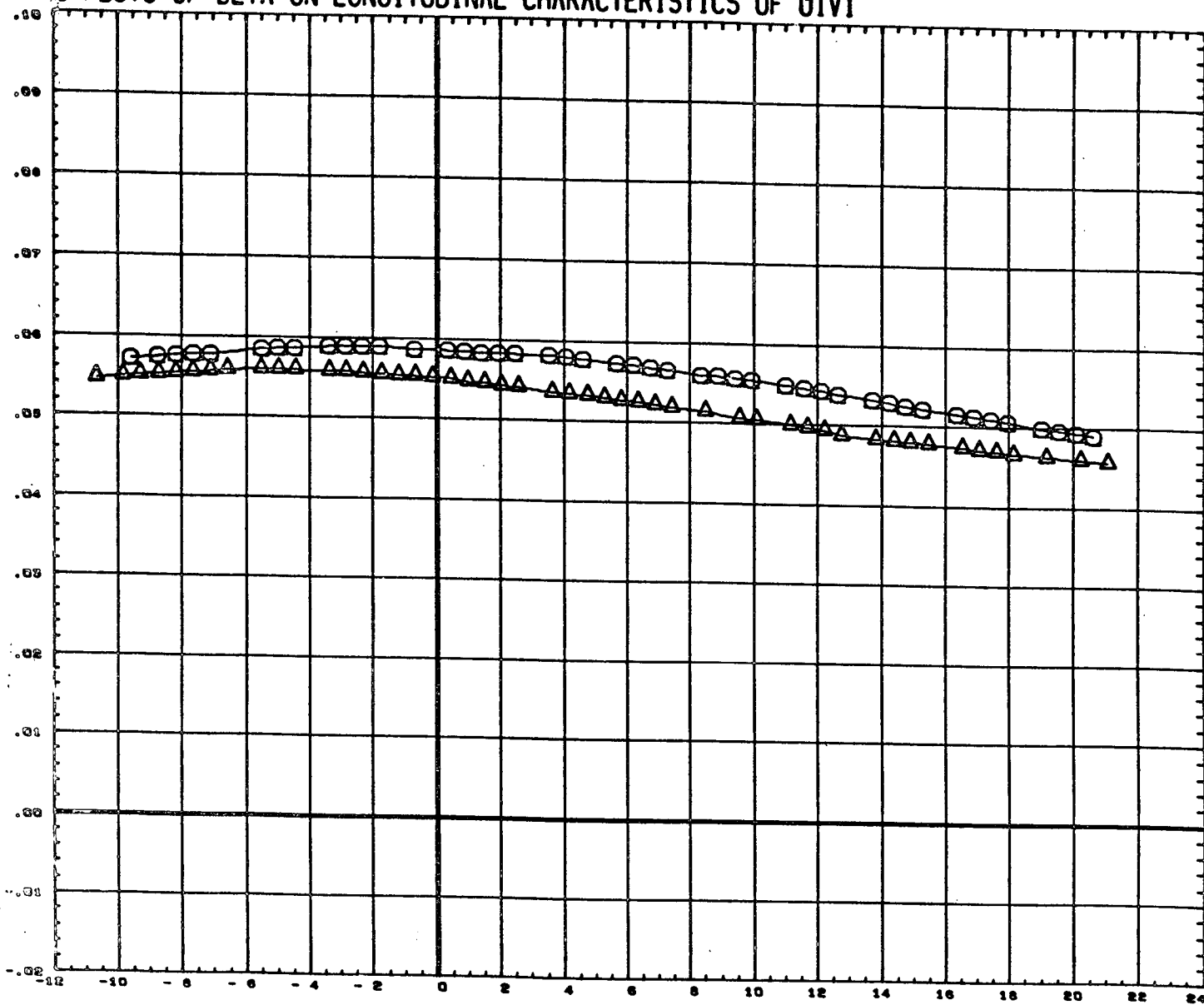
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	6.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

PAGE 101

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE O1V1
 (CD7705) MDAC S-222 ORBITER ALONE O1V1

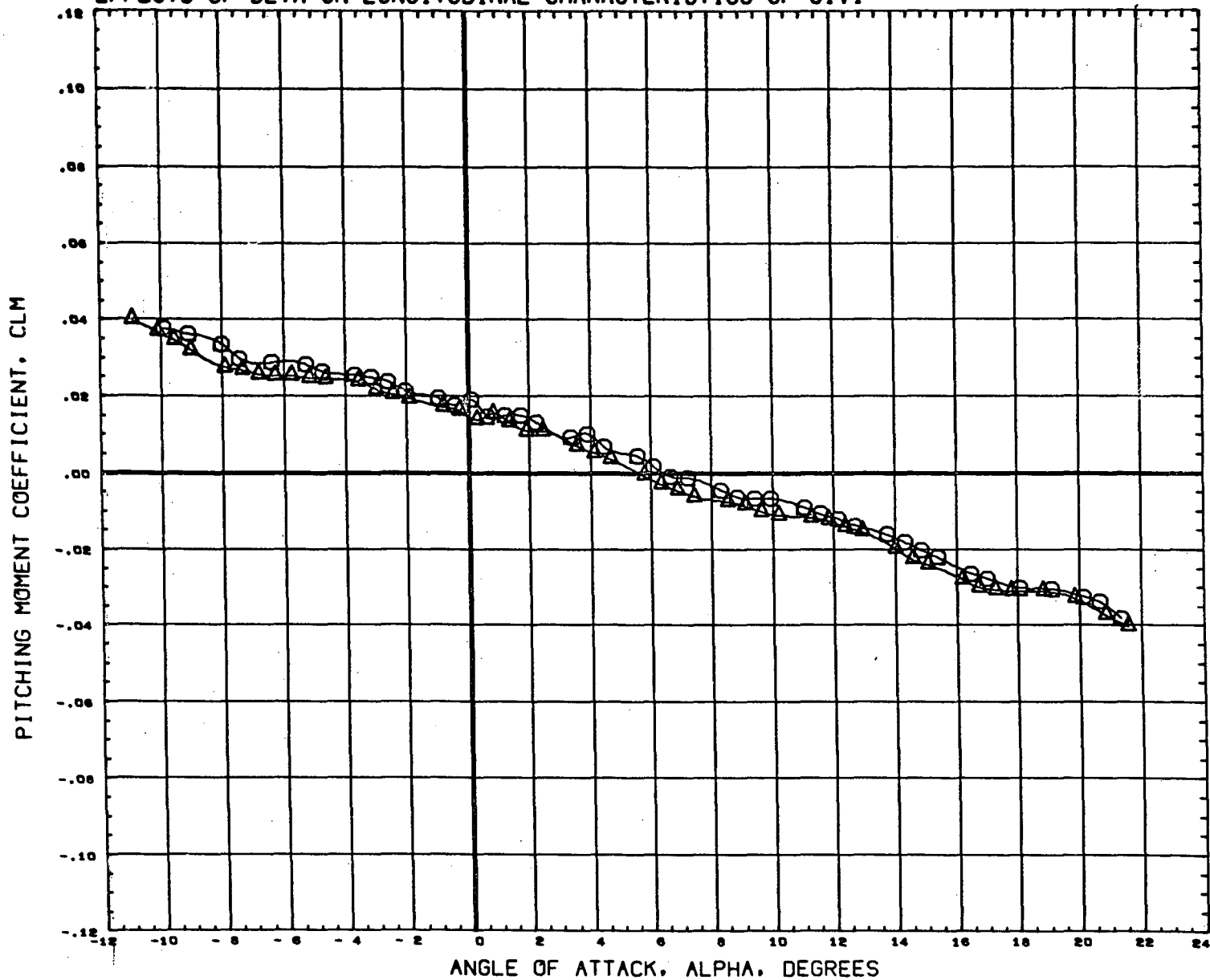
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 2.20

PAGE 102

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



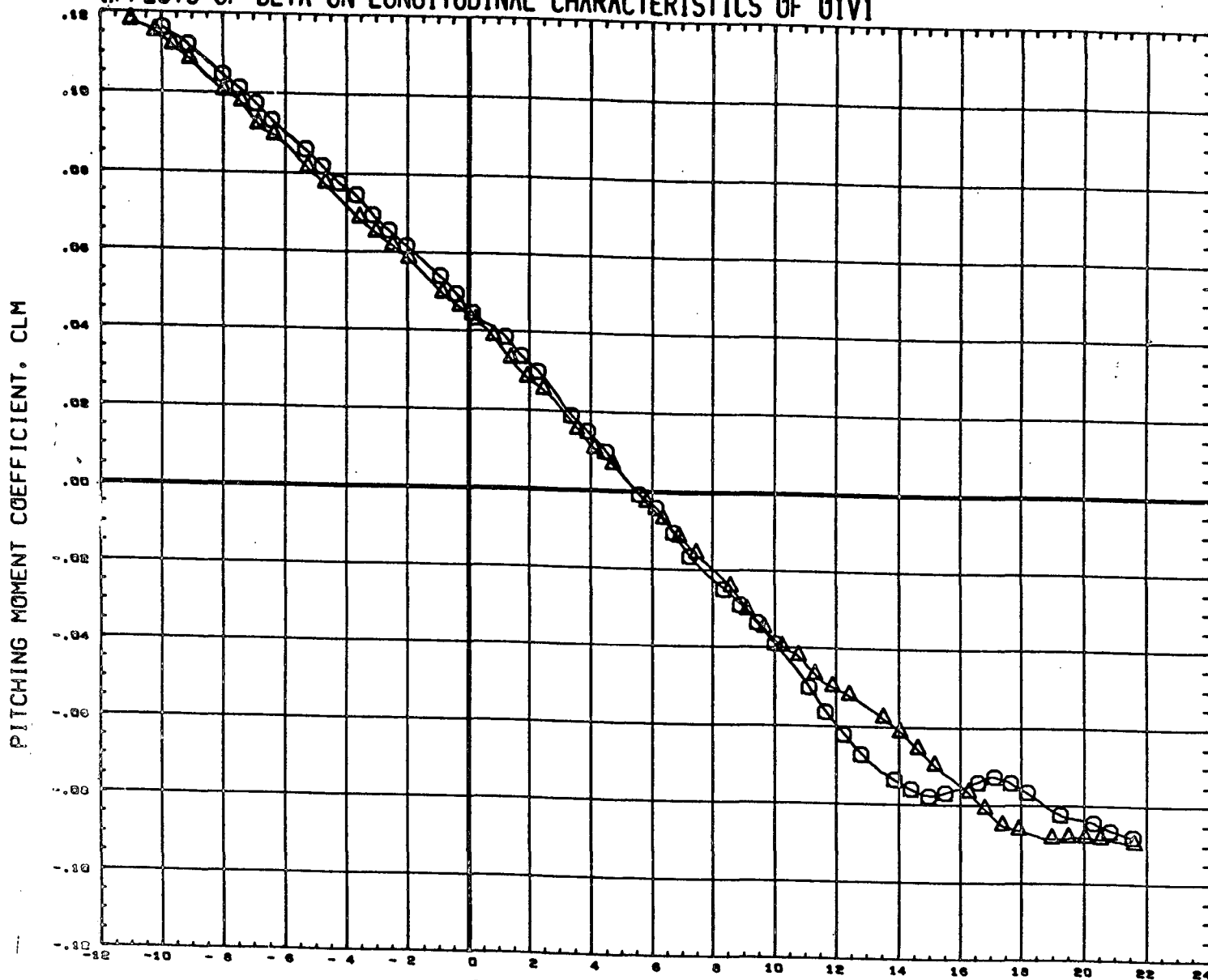
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE O1V1
 (CD7705) MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 103

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



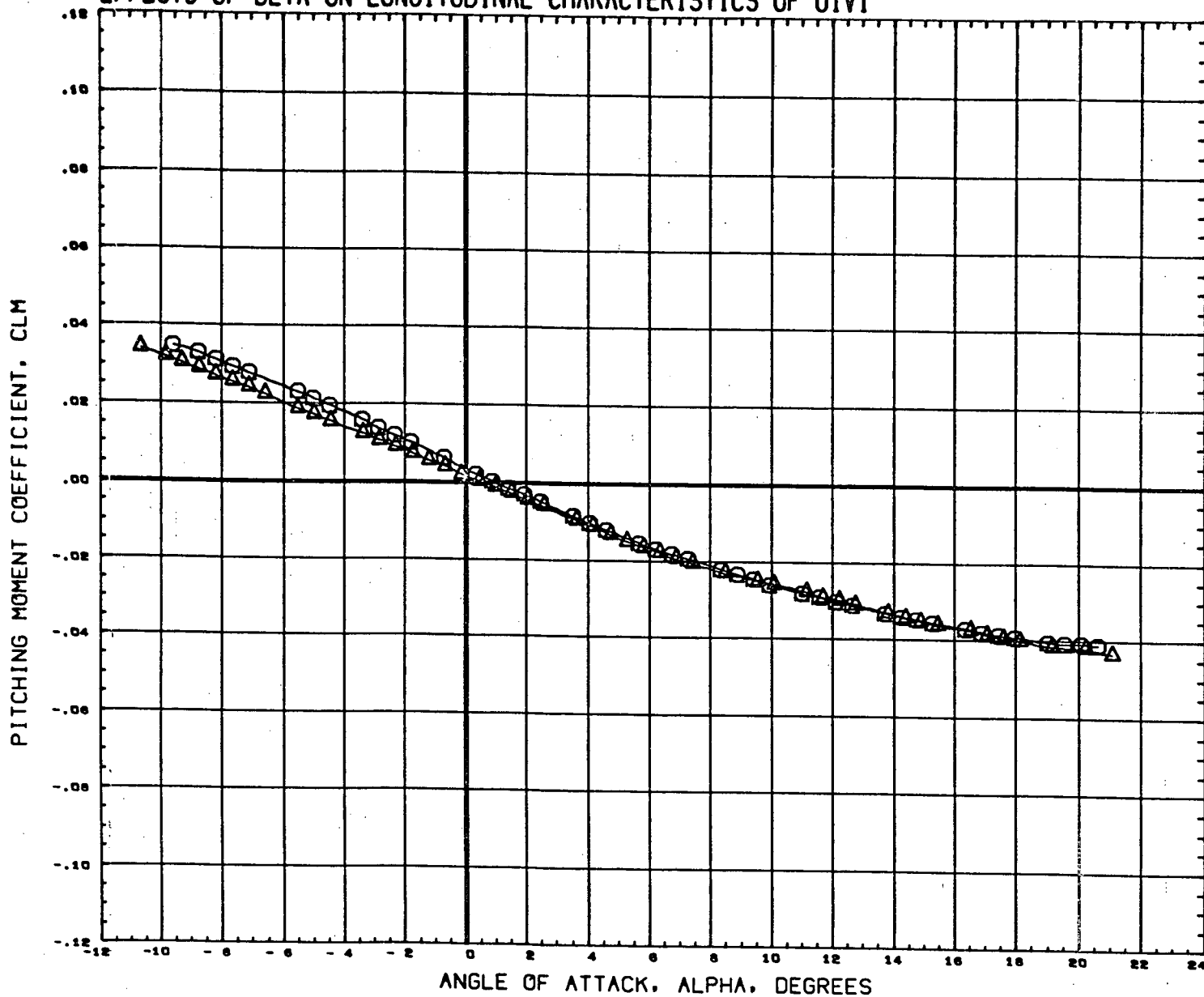
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE O1V1
 (CD7705) MDAC S-222 ORBITER ALONE O1V1

BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 1.08

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1

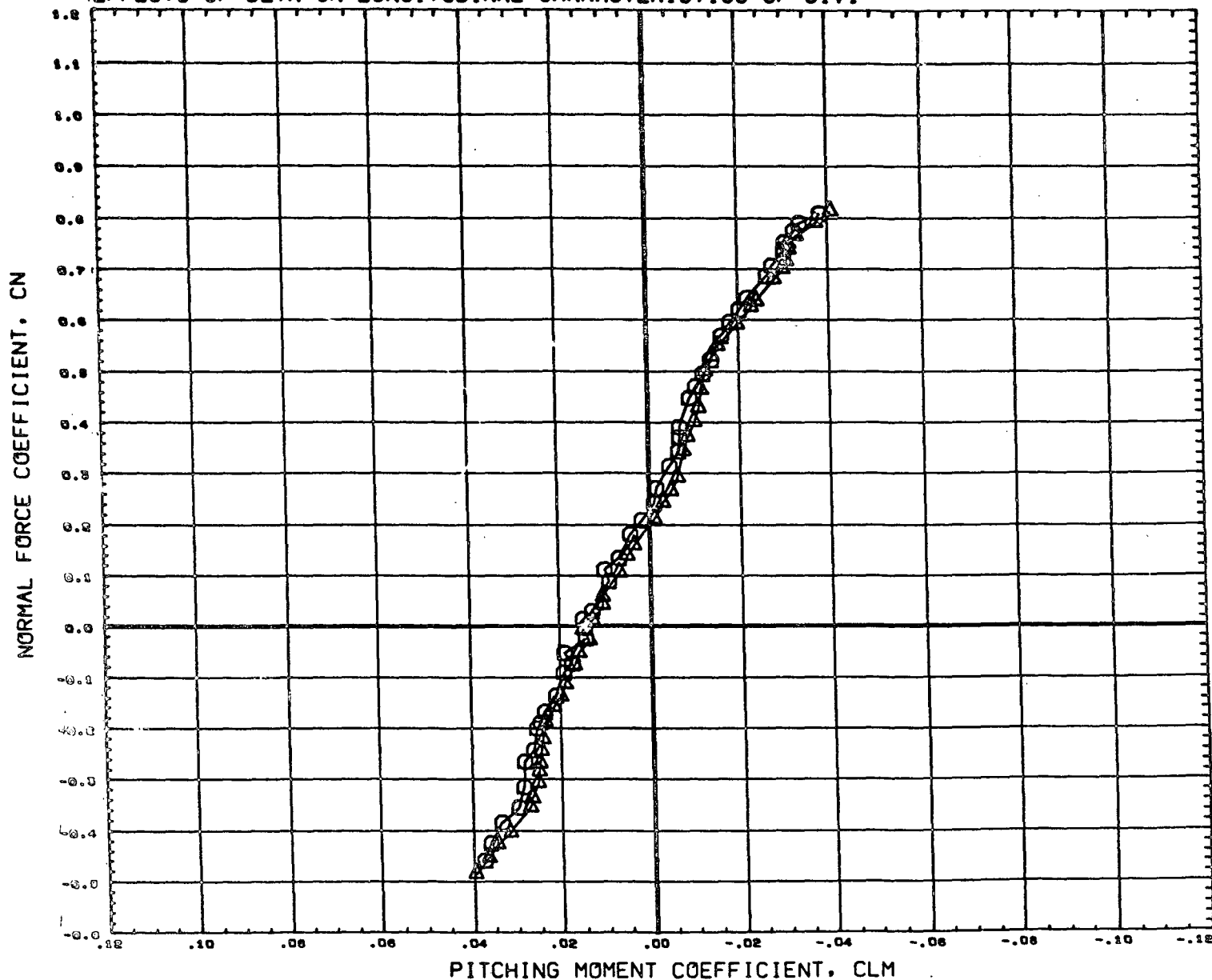


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) ○ MDAC S-222 ORBITER ALONE 01V1
 (CD7705) Δ MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE O1V1
 (CD7705) MDAC S-222 ORBITER ALONE O1V1

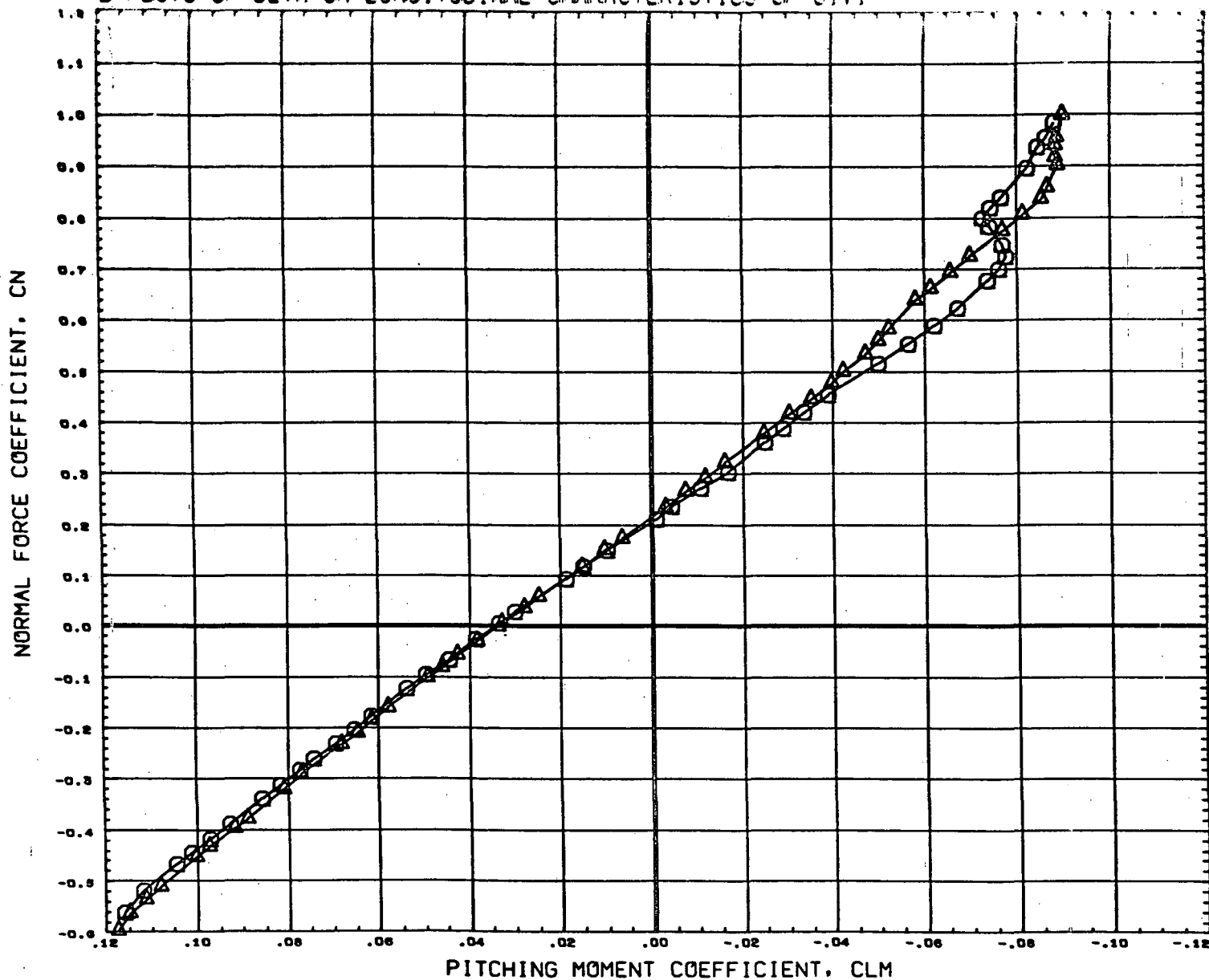
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 106

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7704)	MDAC S-222 ORBITER ALONE O1V1
(CD7705)	MDAC S-222 ORBITER ALONE O1V1

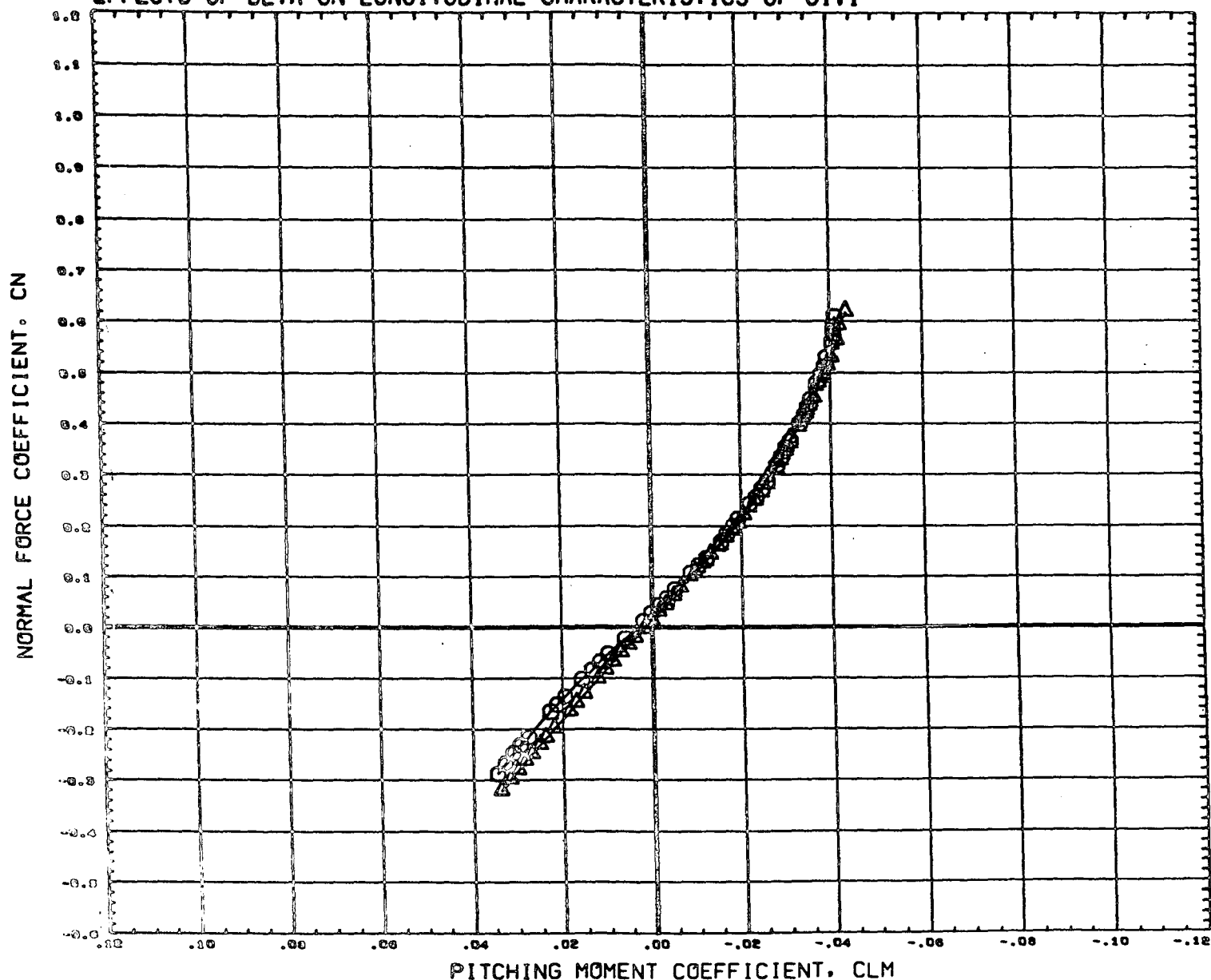
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH

1.08

PAGE 107

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C07704) MDAC S-222 ORBITER ALONE O1V1
 (C07709) MDAC S-222 ORBITER ALONE O1V1

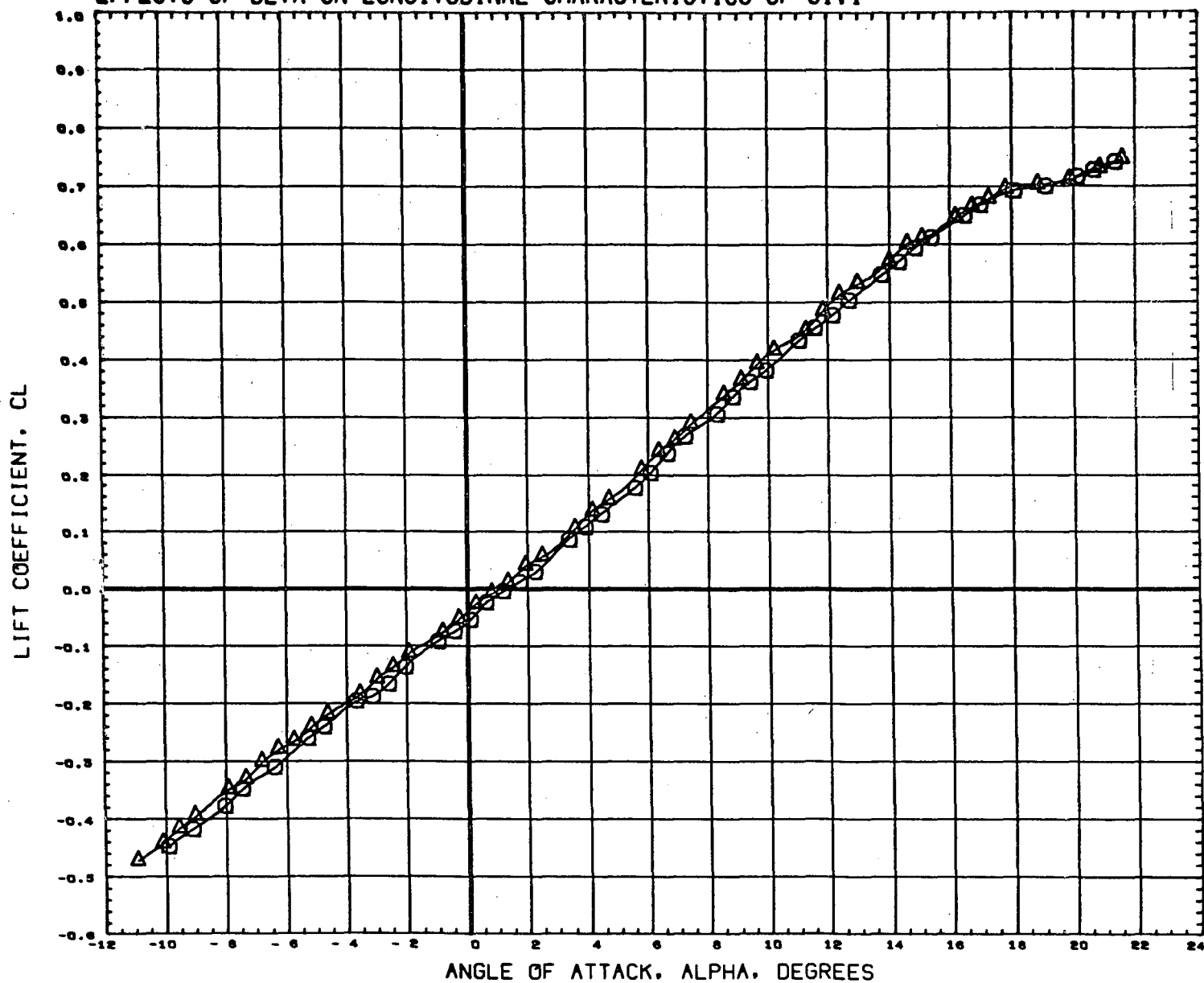
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0000 IN.
 SCALE 0.0060

MACH 2.20

PAGE 108

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



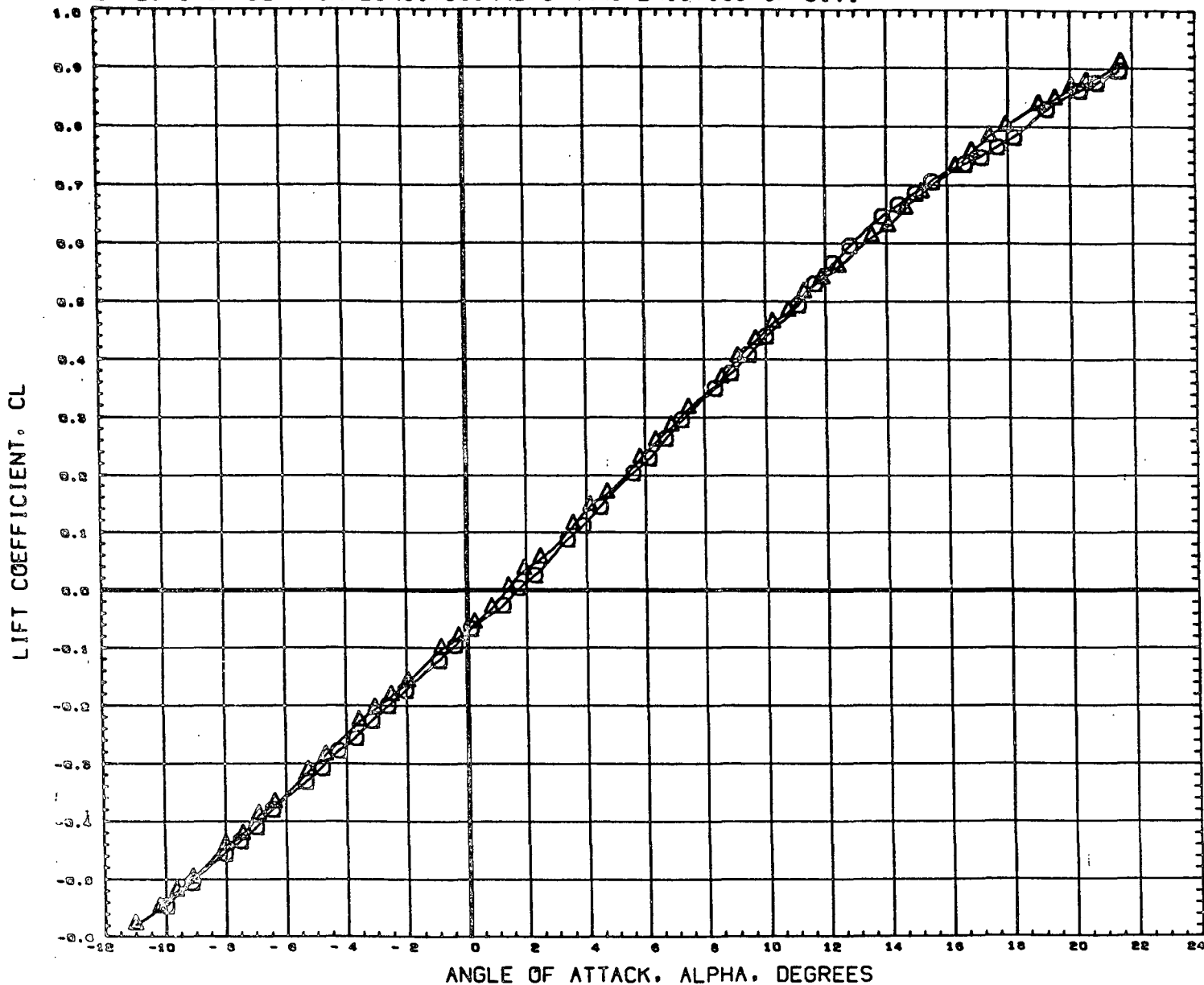
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) O MDAC S-222 ORBITER ALONE O1V1
 (CD7705) Δ MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	809.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

PAGE 109

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



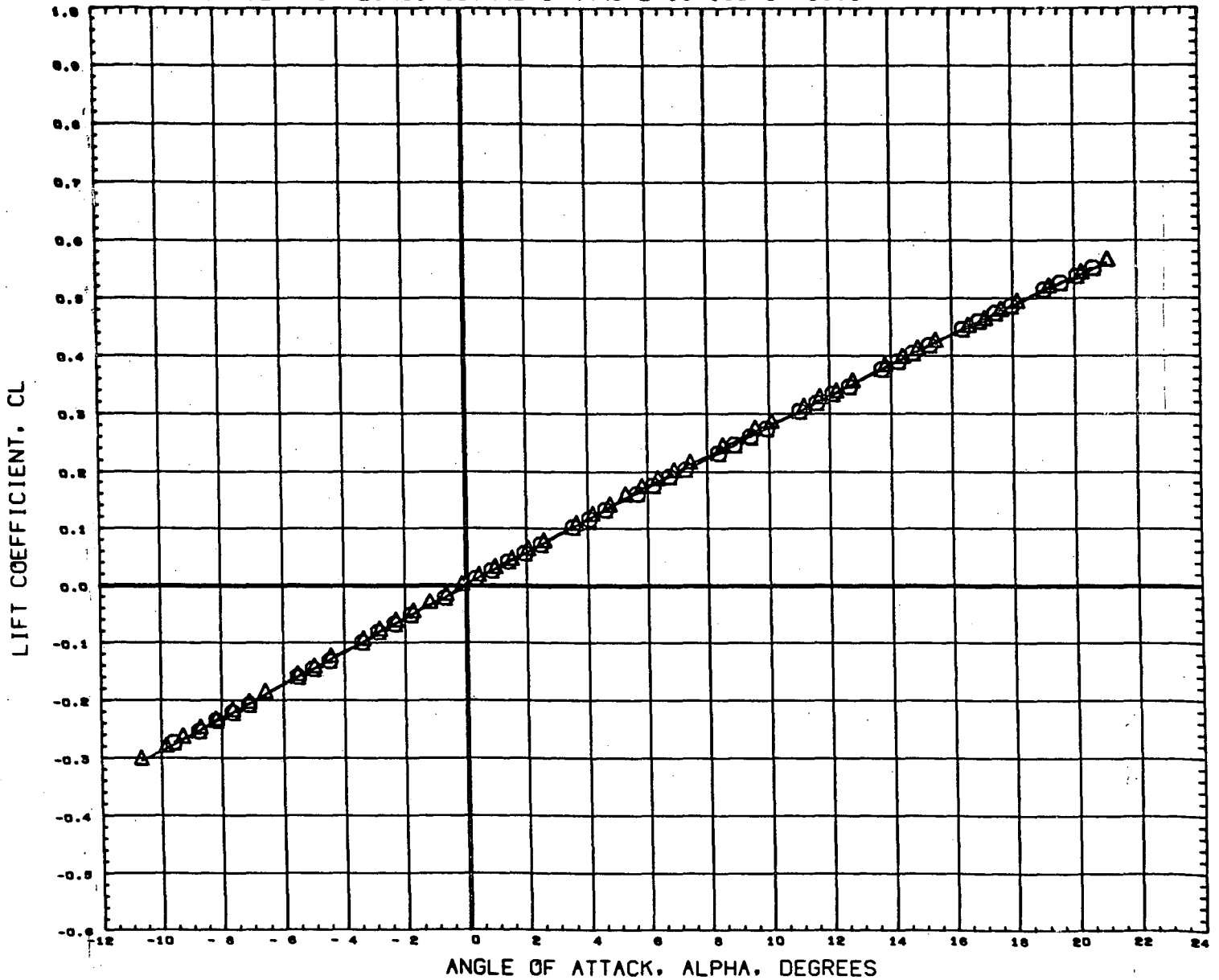
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) MDAC S-222 ORBITER ALONE 01V1
(CD7709) MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3159.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

PAGE 110

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE 01V1
 (CD7705) MDAC S-222 ORBITER ALONE 01V1

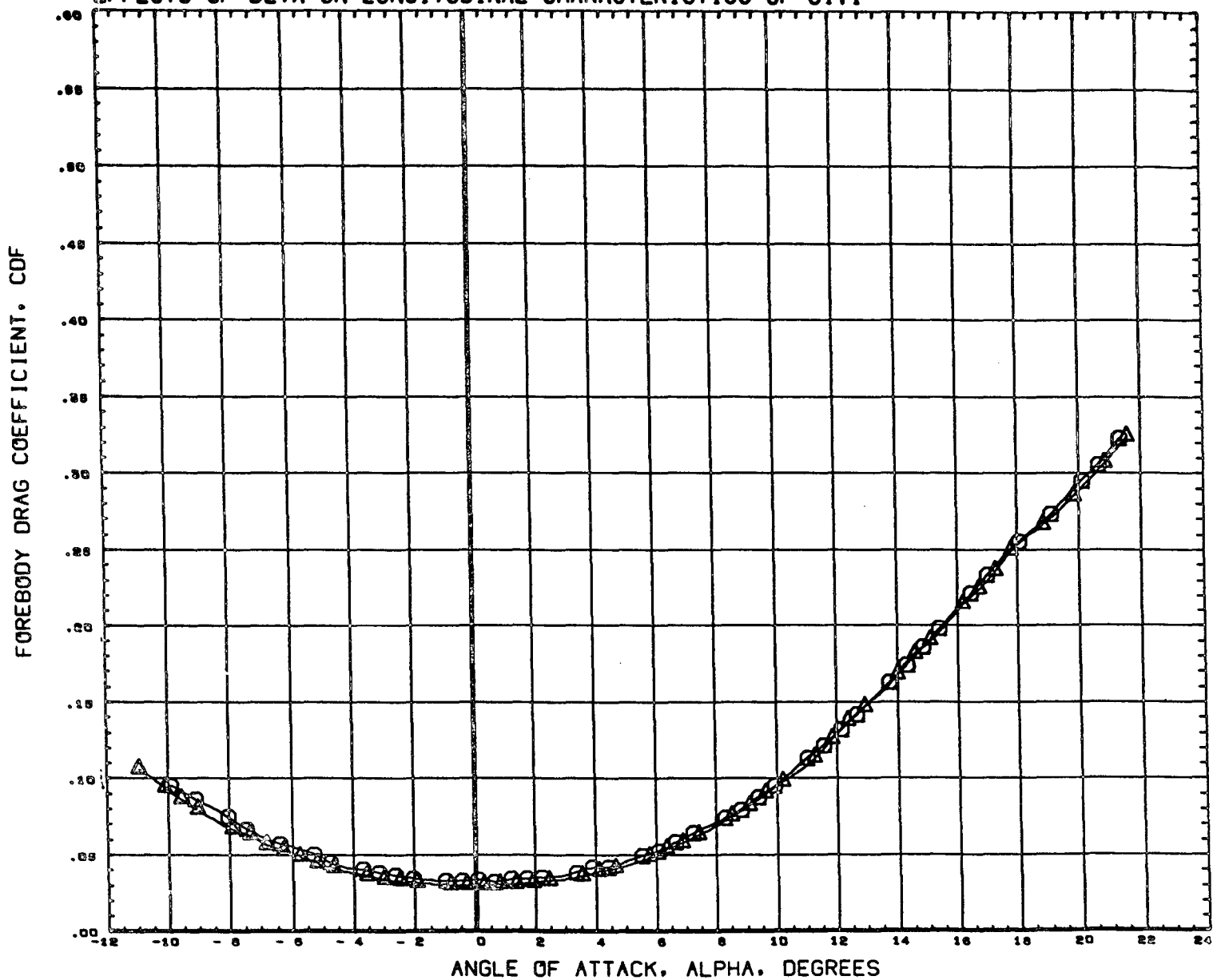
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 0.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BRFP 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 2.20

PAGE 111

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) MDAC S-222 ORBITER ALONE 01V1
(CD7705) MDAC S-222 ORBITER ALONE 01V1

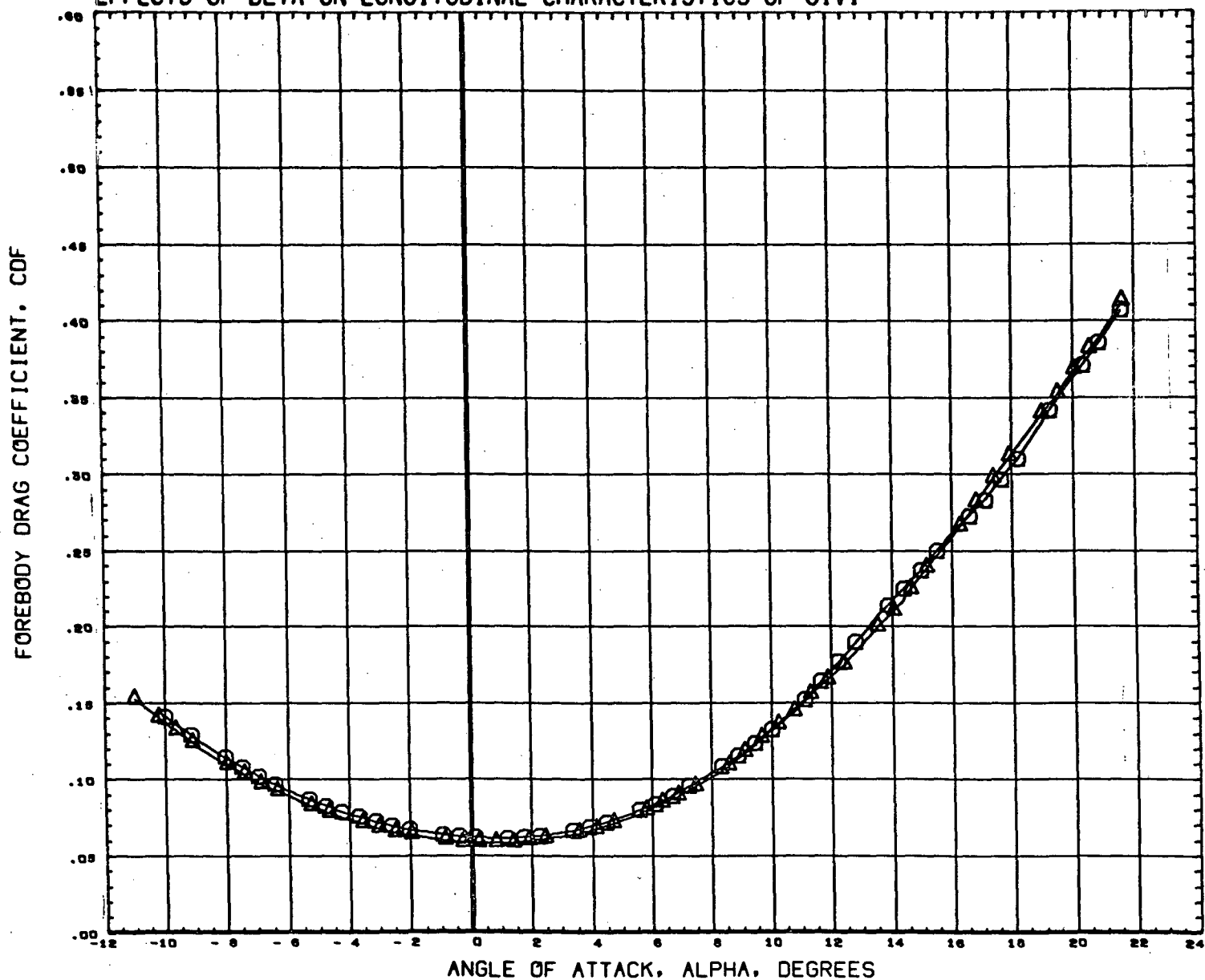
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 862.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 112

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



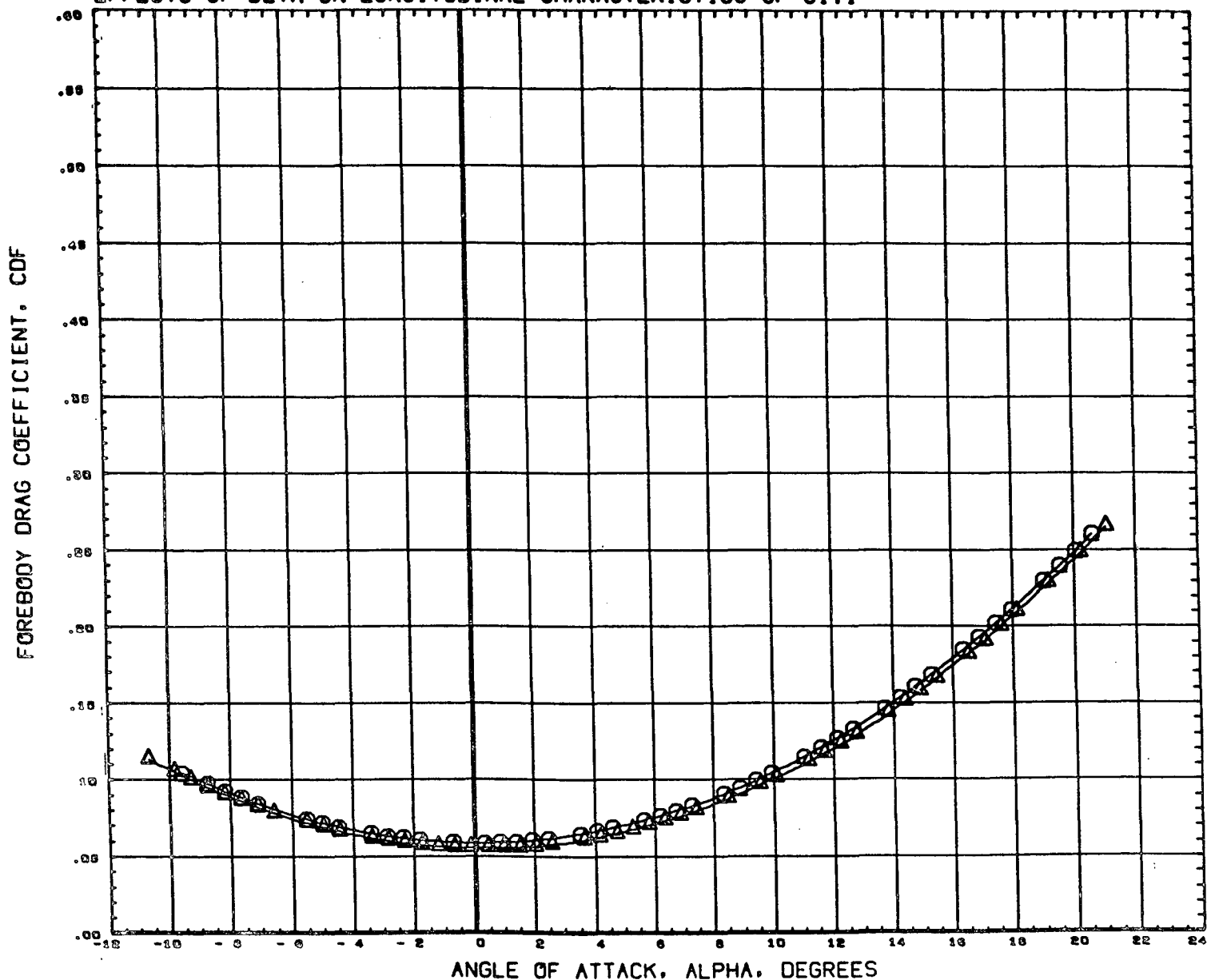
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) MDAC S-222 ORBITER ALONE O1V1
(CD7705) MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

PAGE 113

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) Q MDAC S-222 ORBITER ALONE O1V1
(CD7705) Q MDAC S-222 ORBITER ALONE O1V1

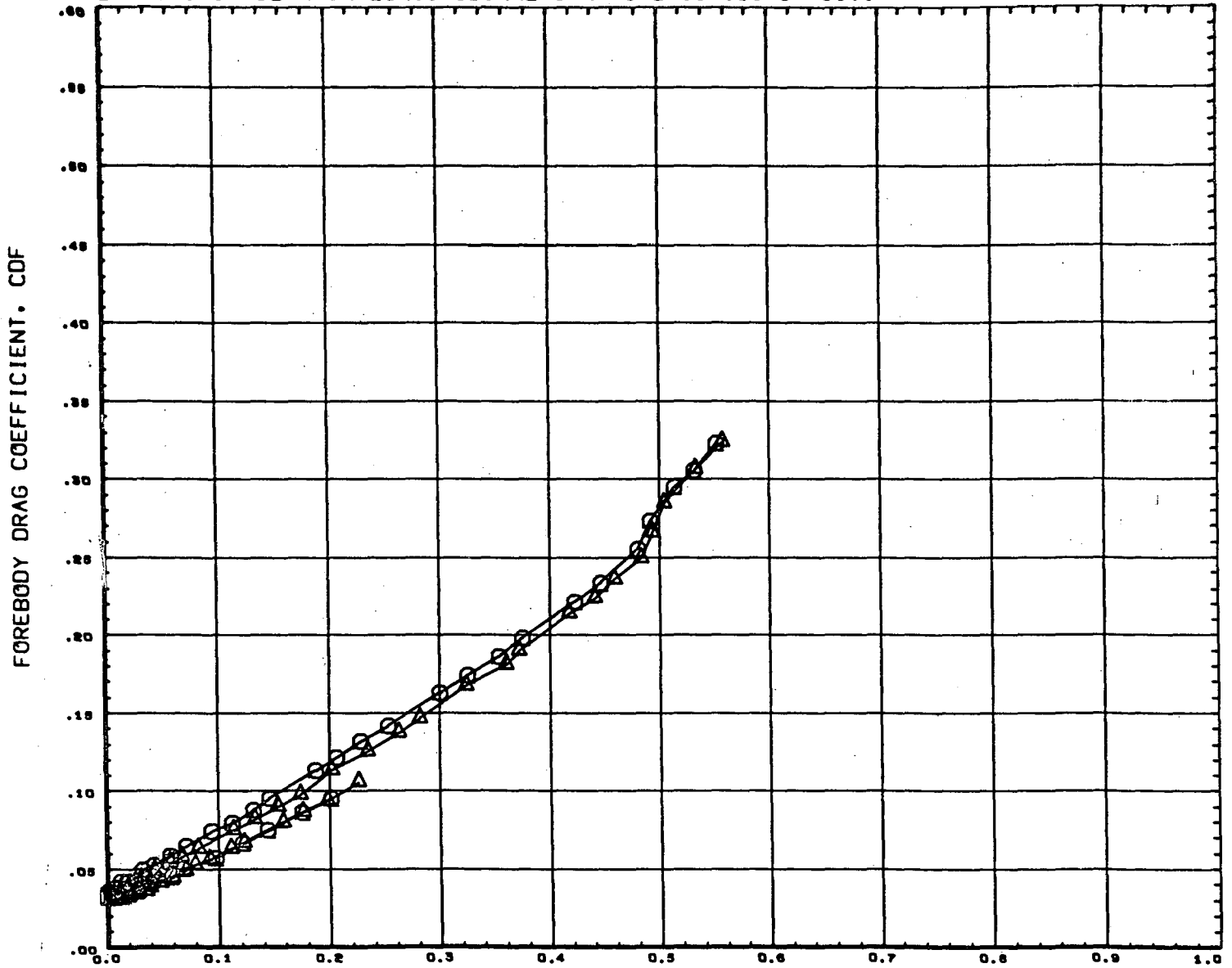
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 862.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 114

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7704)	MDAC S-222 ORBITER ALONE O1V1
(CD7705)	MDAC S-222 ORBITER ALONE O1V1

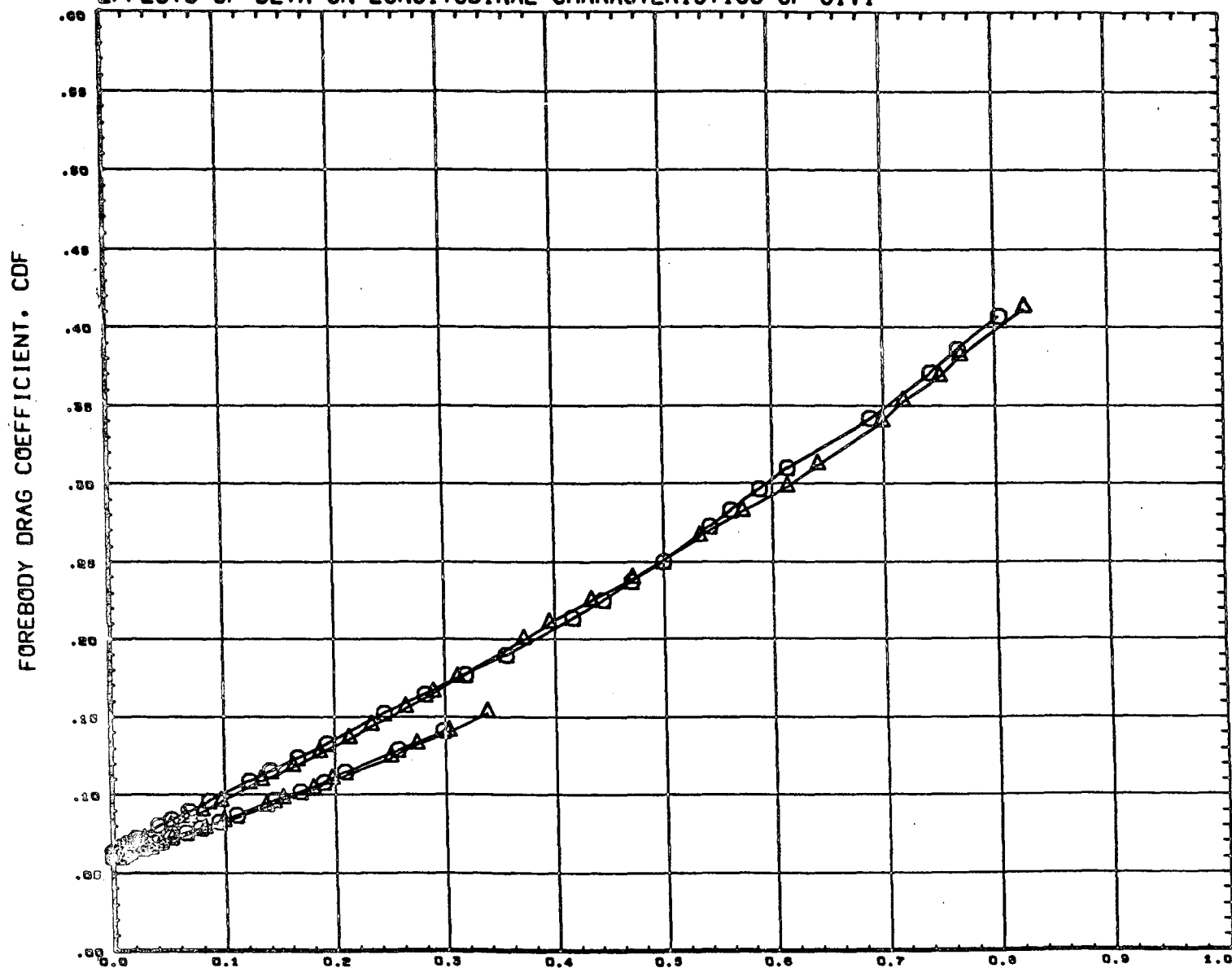
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	605.3004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0000	

MACH .89

PAGE 115

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7704)	MDAC S-222 ORBITER ALONE O1V1
(CD7705)	MDAC S-222 ORBITER ALONE O1V1

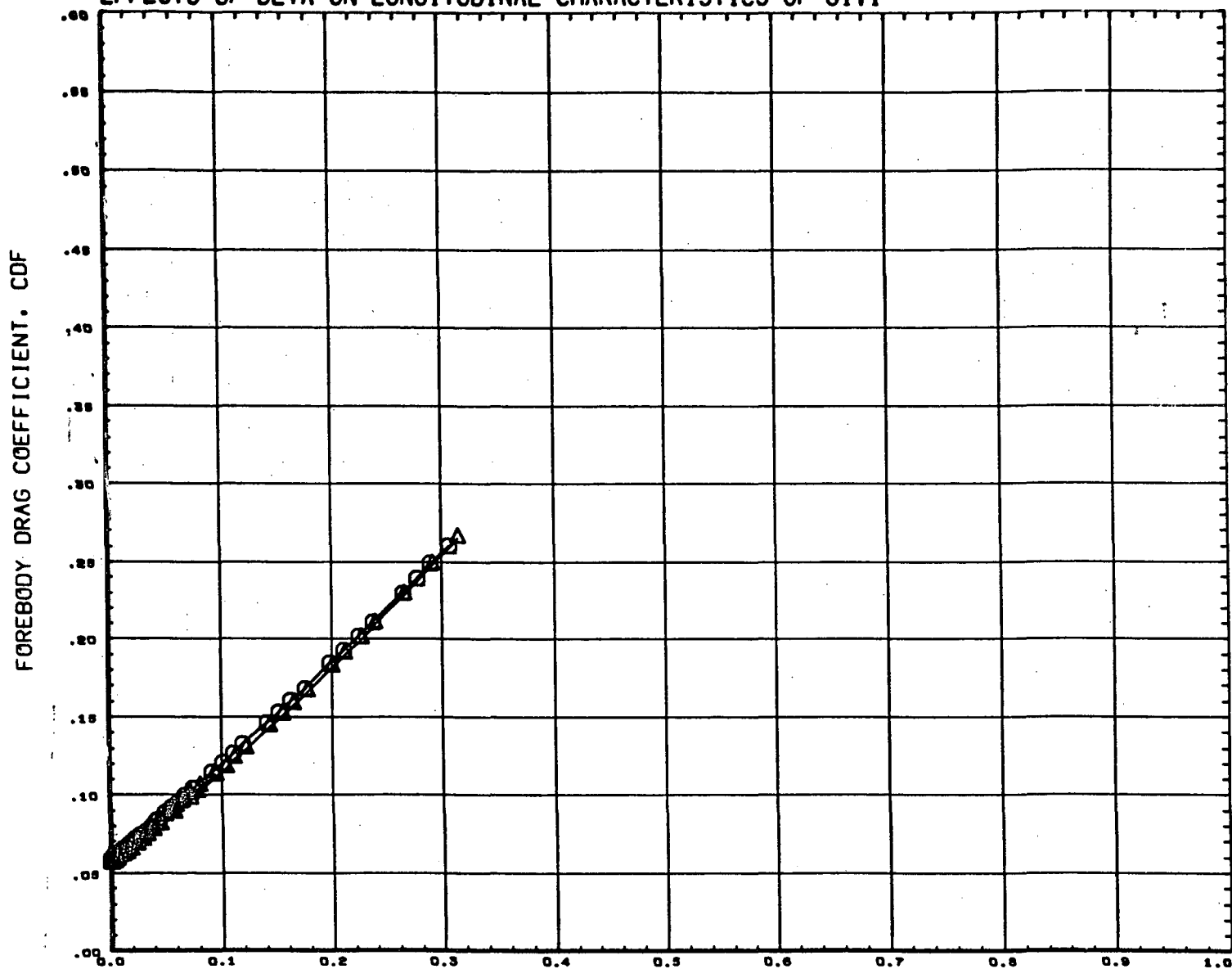
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1060.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 116

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



LIFT COEFFICIENT SQUARED, CLSQR

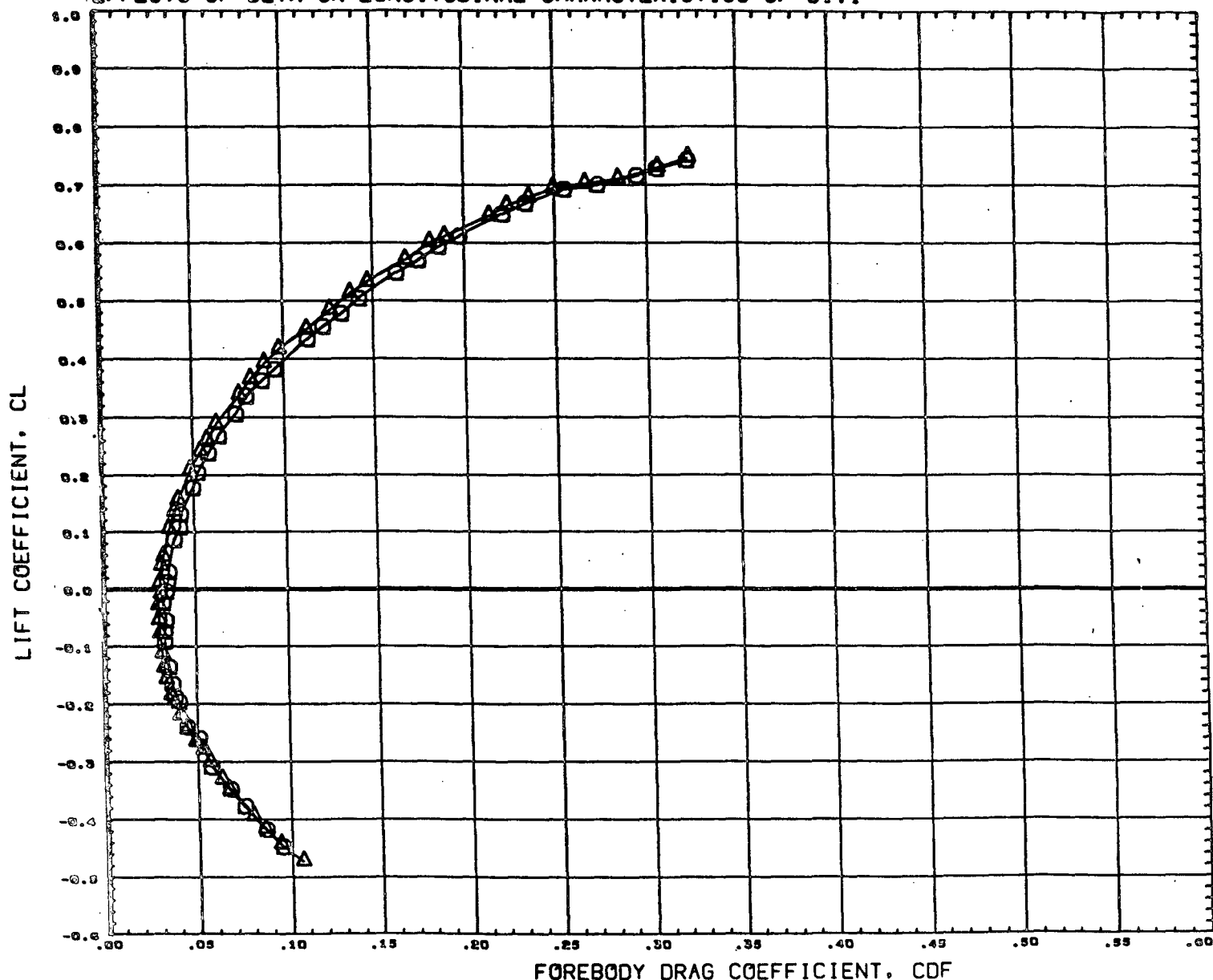
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE 01V1
 (CD7705) MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3159.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF 609.5004 IN.
				BREF 882.0004 IN.
				XMRP 1060.0040 IN.
				YMRP 0.0000 IN.
				ZMRP 404.0004 IN.
				SCALE 0.0060

MACH 2.20

PAGE 117

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) ○ MDAC S-222 ORBITER ALONE O1V1
(CD7705) △ MDAC S-222 ORBITER ALONE O1V1

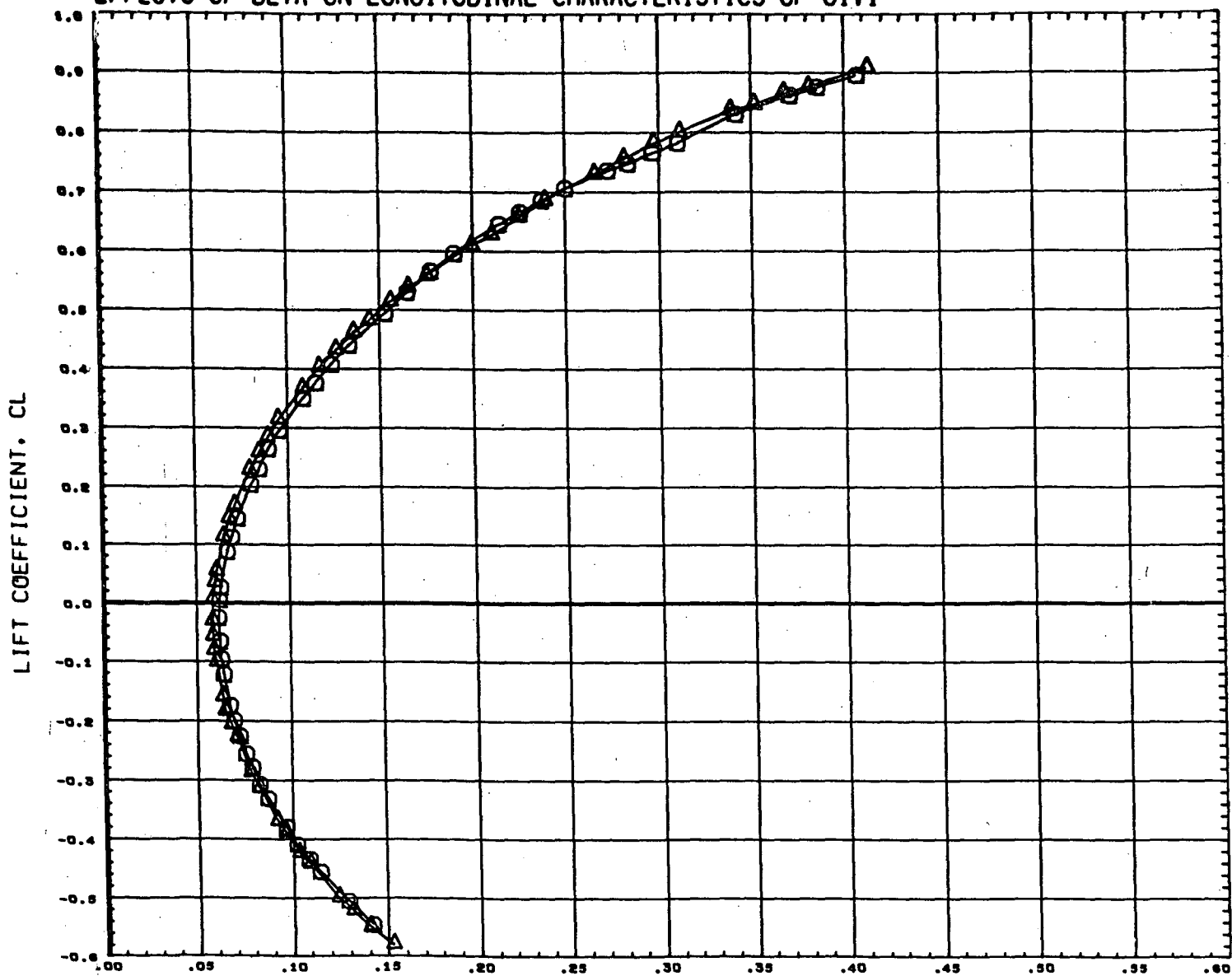
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 662.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 118

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7704) ○ MDAC S-222 ORBITER ALONE O1V1
(CD7705) △ MDAC S-222 ORBITER ALONE O1V1

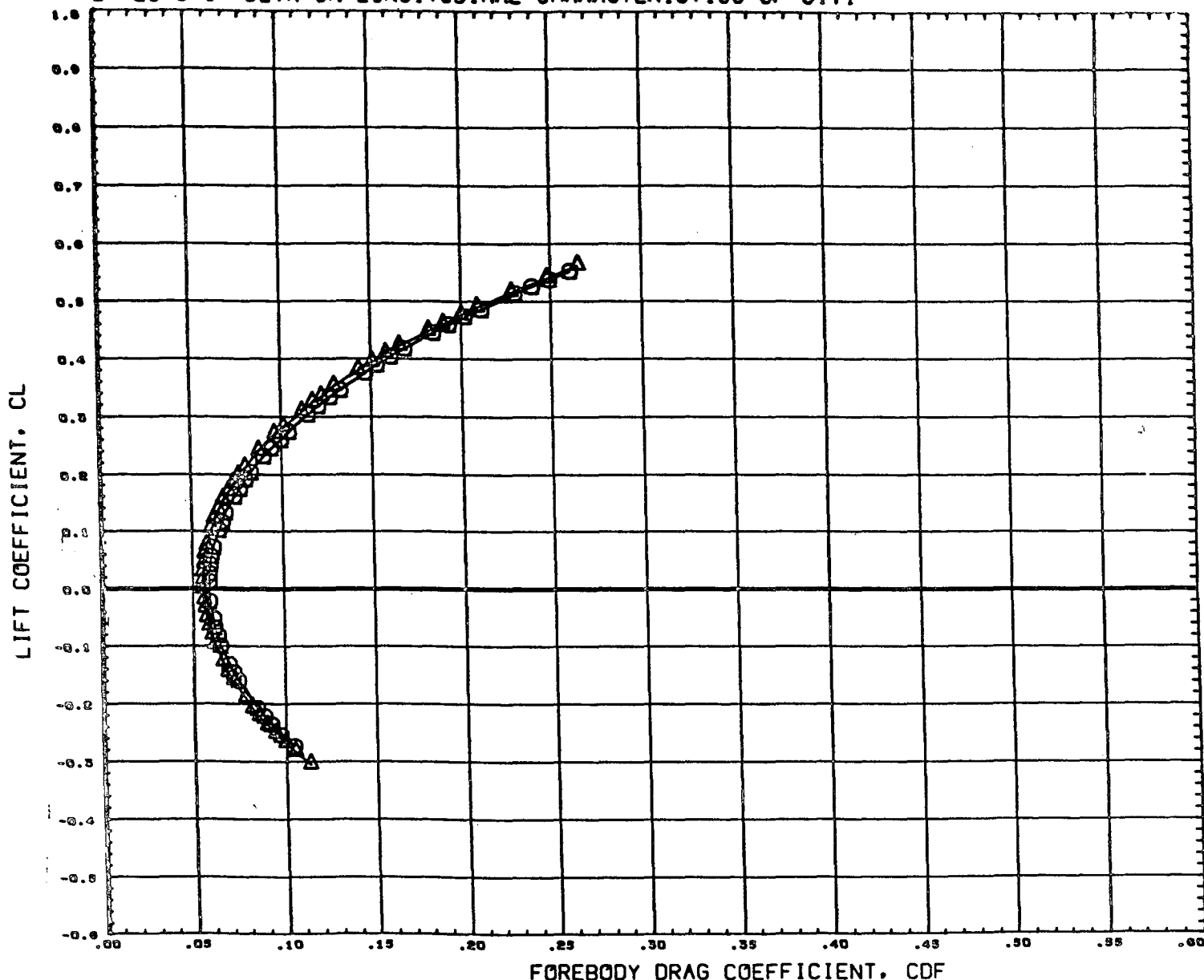
FOREBODY DRAG COEFFICIENT, CDF



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

PAGE 119

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704)  MDAC S-222 ORBITER ALONE 01V1
 (CD7705)  MDAC S-222 ORBITER ALONE 01V1

FOREBODY DRAG COEFFICIENT, CDF

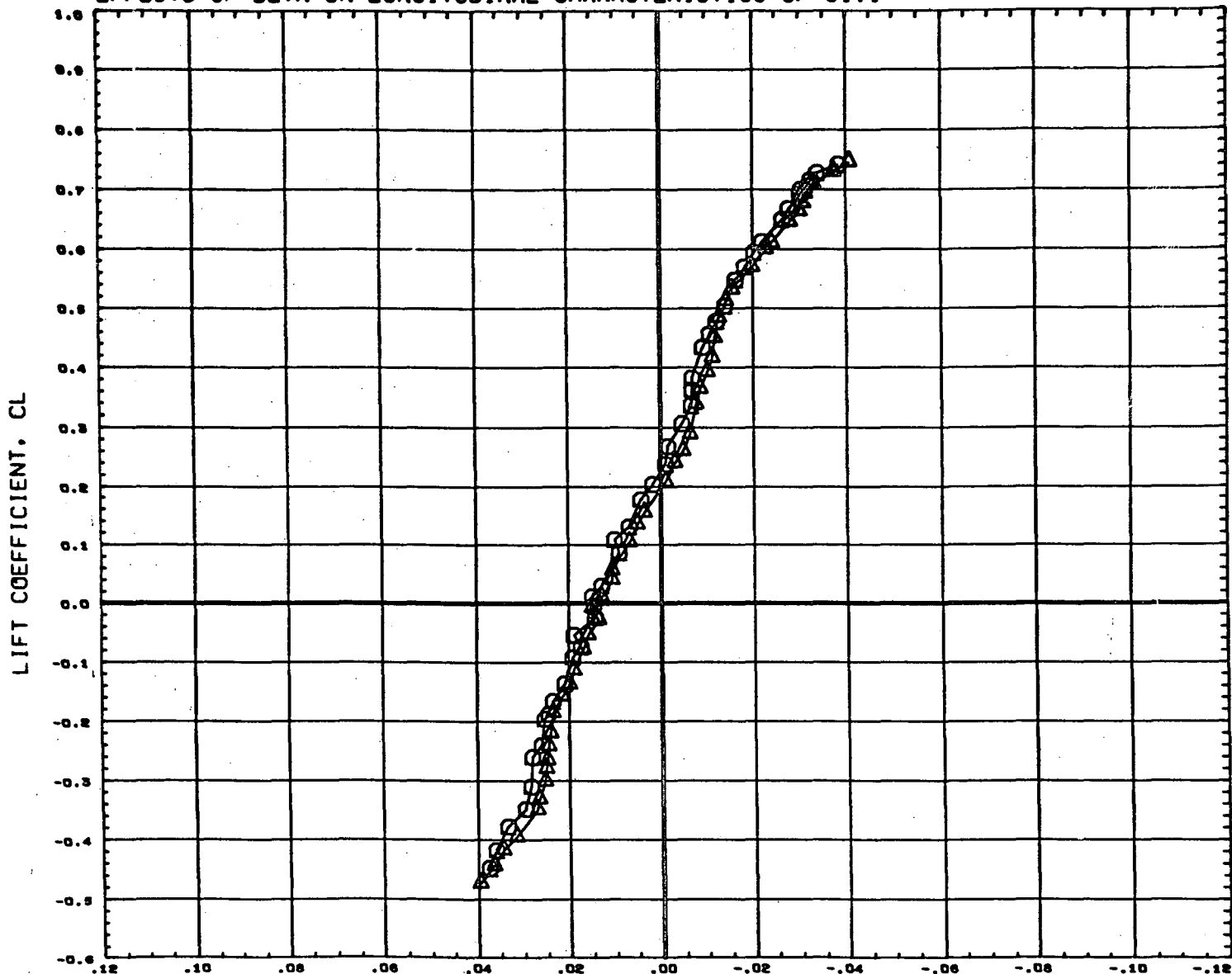
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	809.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0000	

MACH 2.20

PAGE 120

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7704)	MDAC S-222 ORBITER ALONE O1V1
(CD7705)	MDAC S-222 ORBITER ALONE O1V1

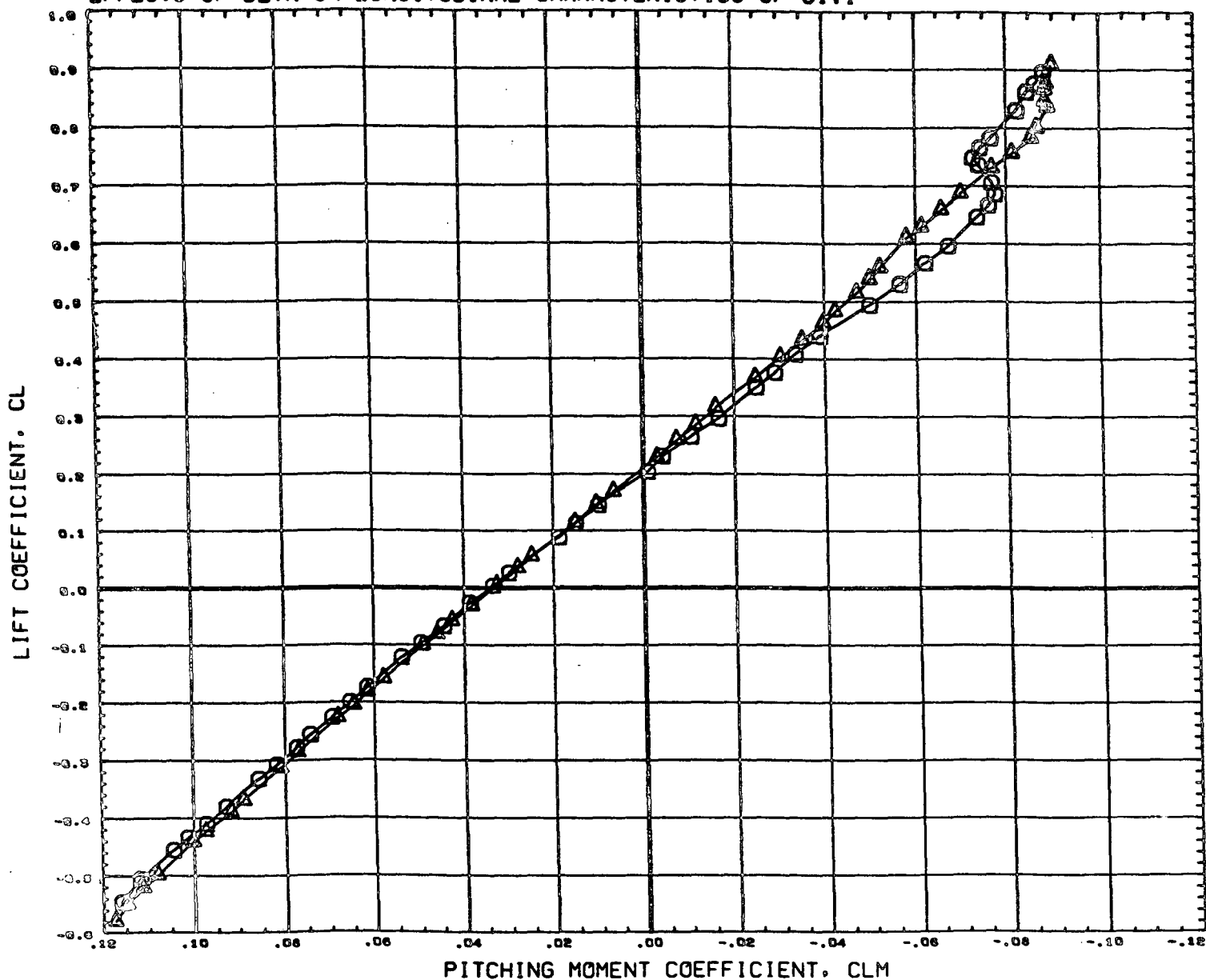
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 121

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) MDAC S-222 ORBITER ALONE 01V1
 (CD7705) MDAC S-222 ORBITER ALONE 01V1

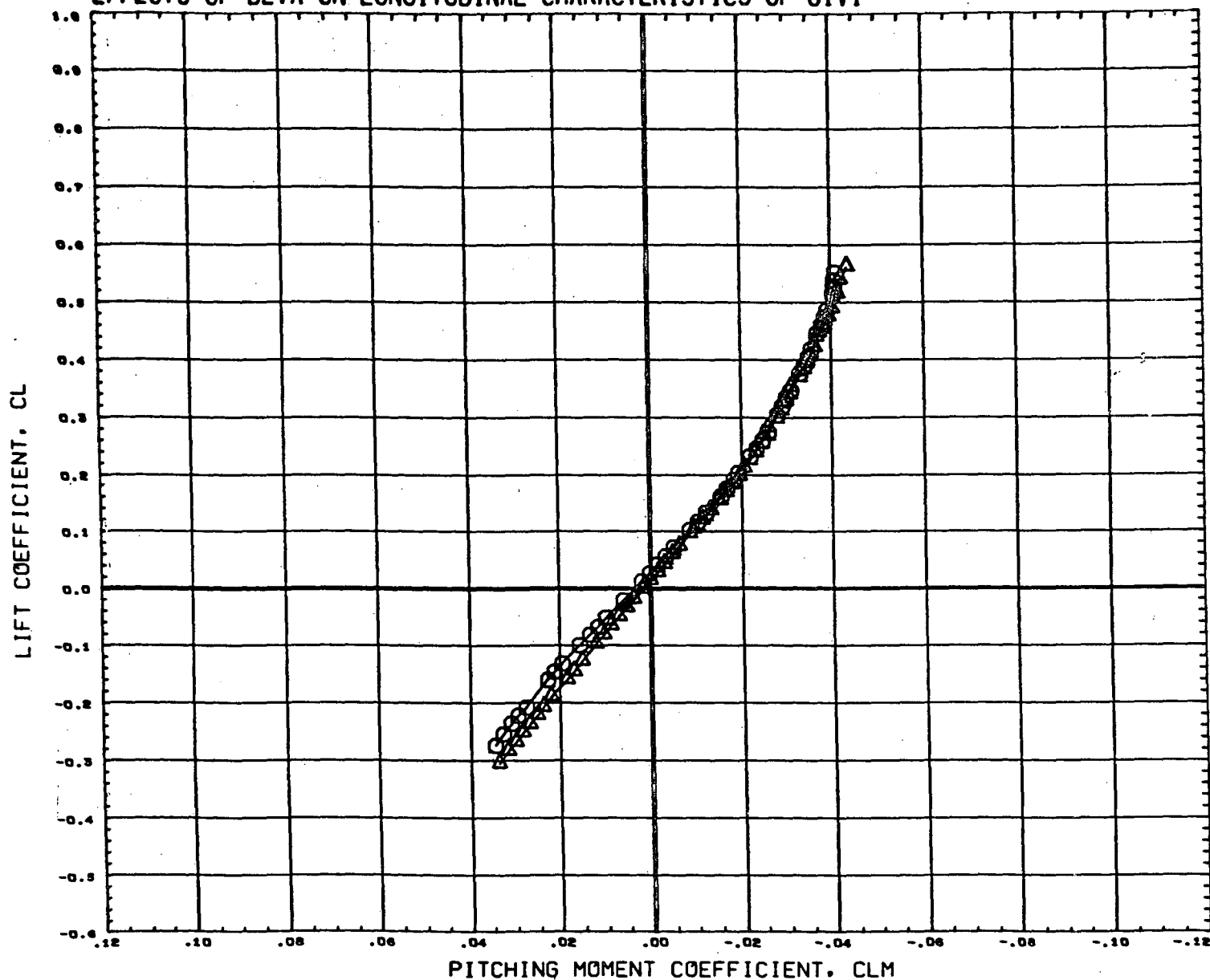
BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 1.08

PAGE 122

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01V1



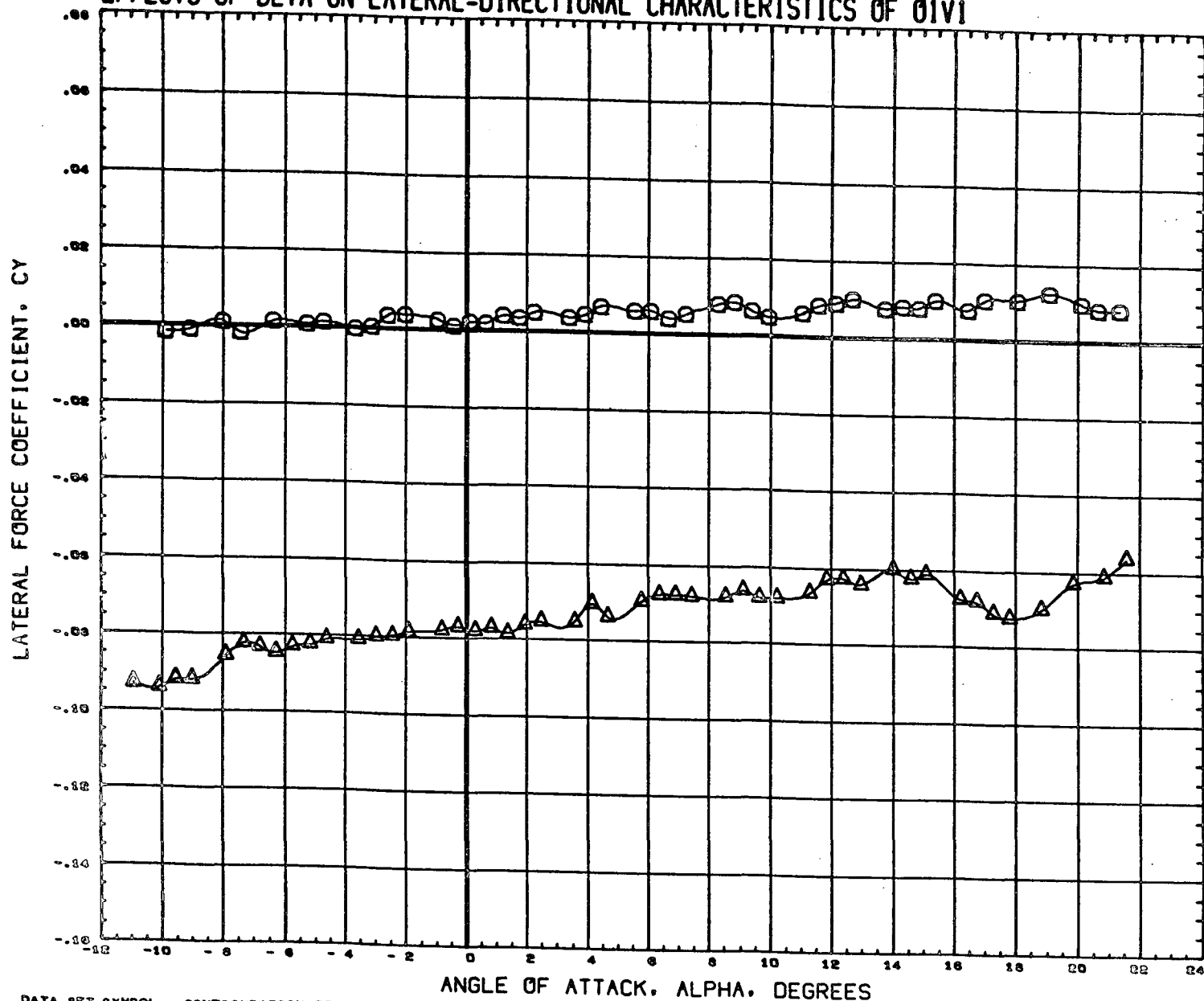
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7704) \bigcirc MDAC S-222 ORBITER ALONE 01V1
 (CD7705) \triangle MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	682.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 123

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1V1

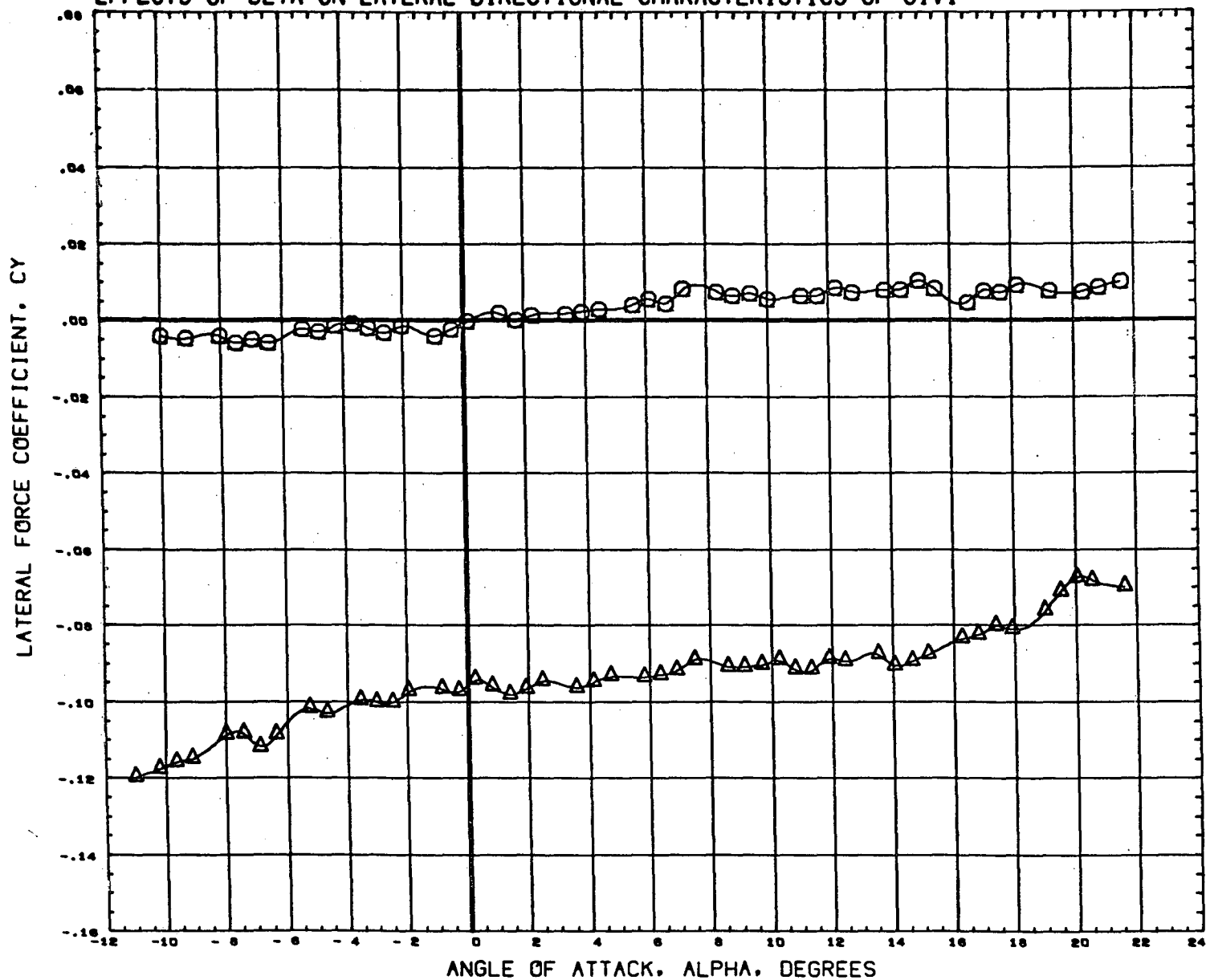


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) MDAC S-222 ORBITER ALONE O1V1
(RD7705) MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	809.5004 IN.
				BREF	882.0004 IN.
				XMRP	1060.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) MDAC S-222 ORBITER ALONE 01V1
(RD7705) MDAC S-222 ORBITER ALONE 01V1

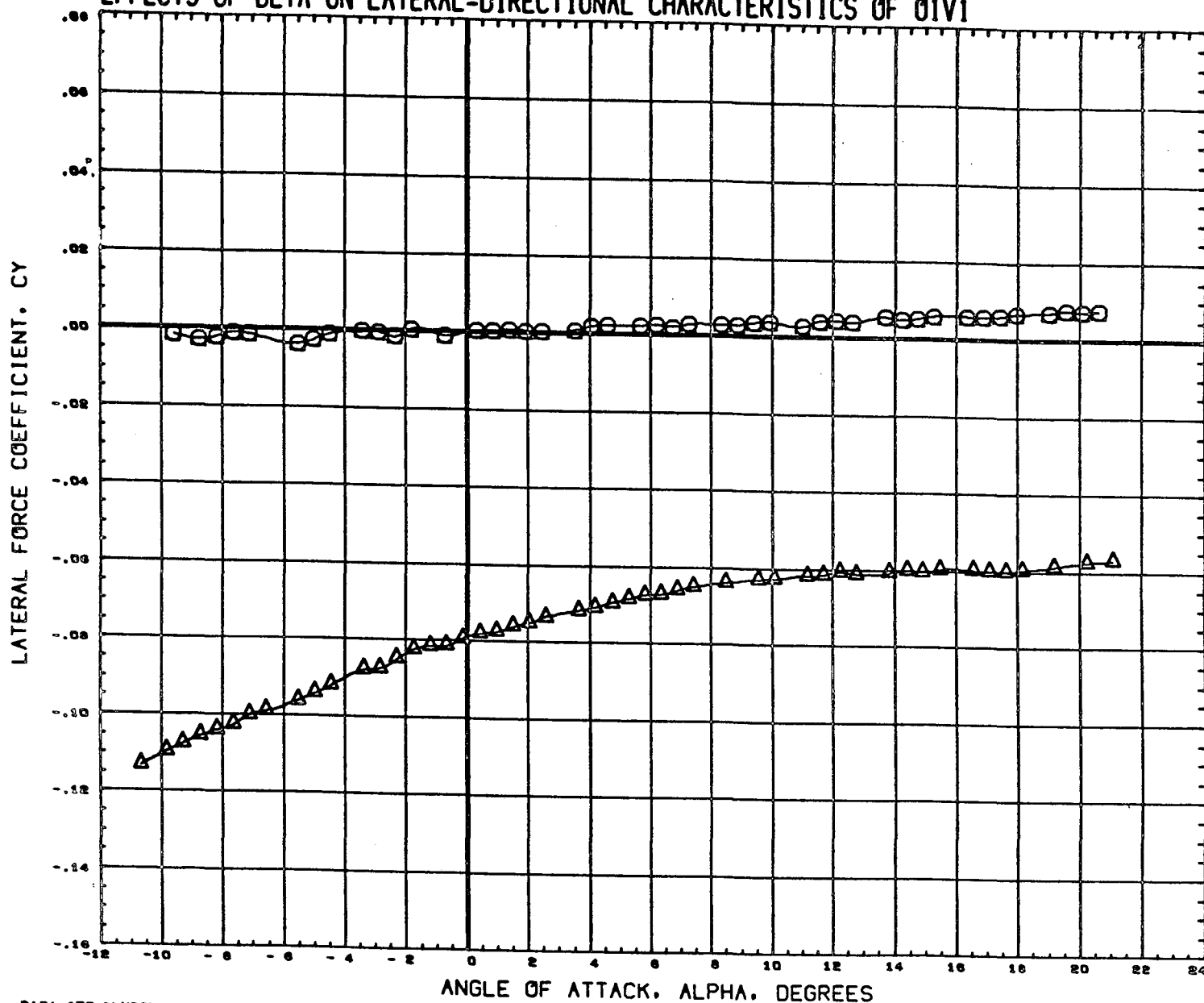
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 125

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01V1

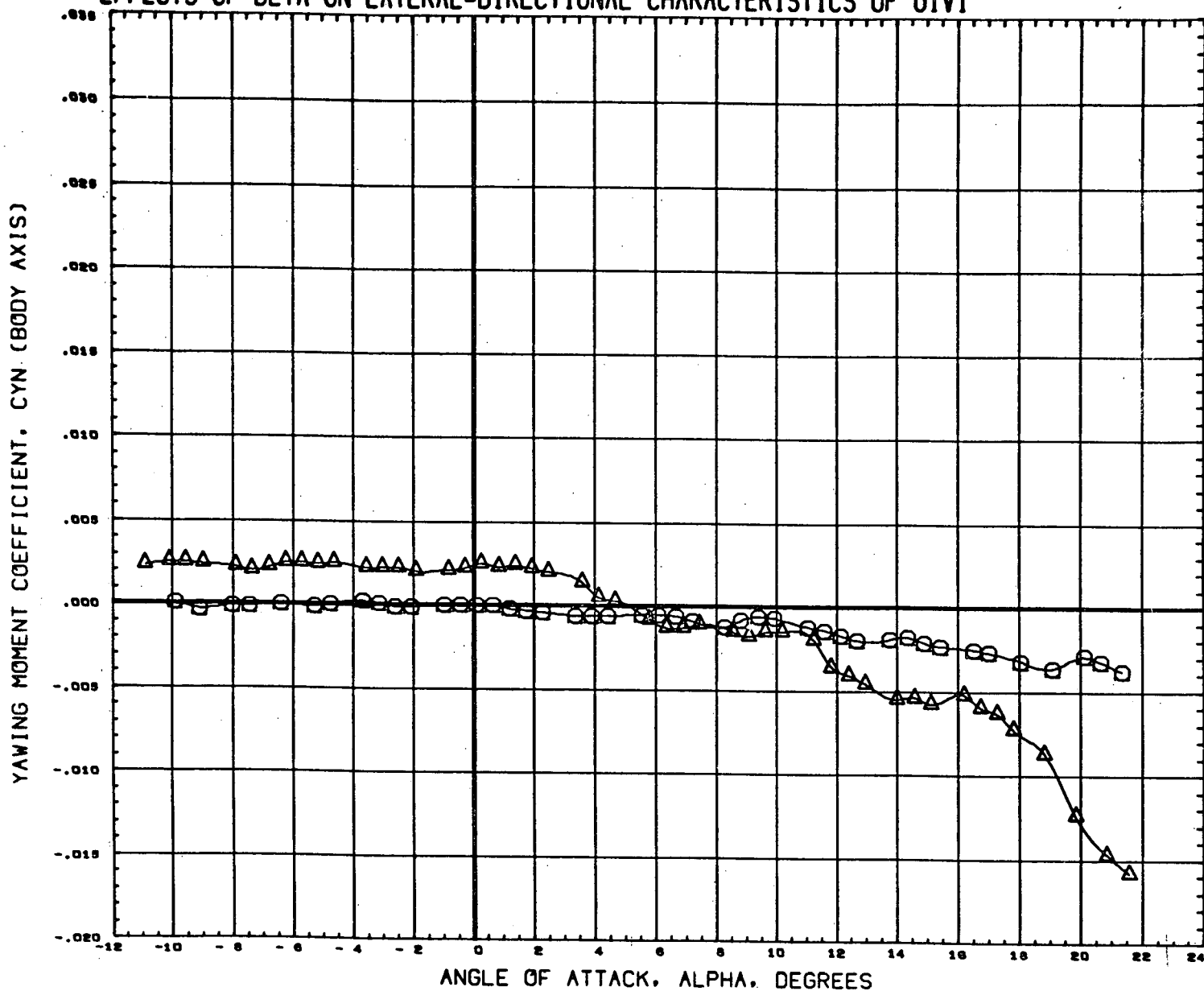


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) MDAC S-222 ORBITER ALONE 01V1
(RD7705) MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004	IN.
				BREF	662.0004	IN.
				XMRP	1060.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0080	

MACH 2.20

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01V1

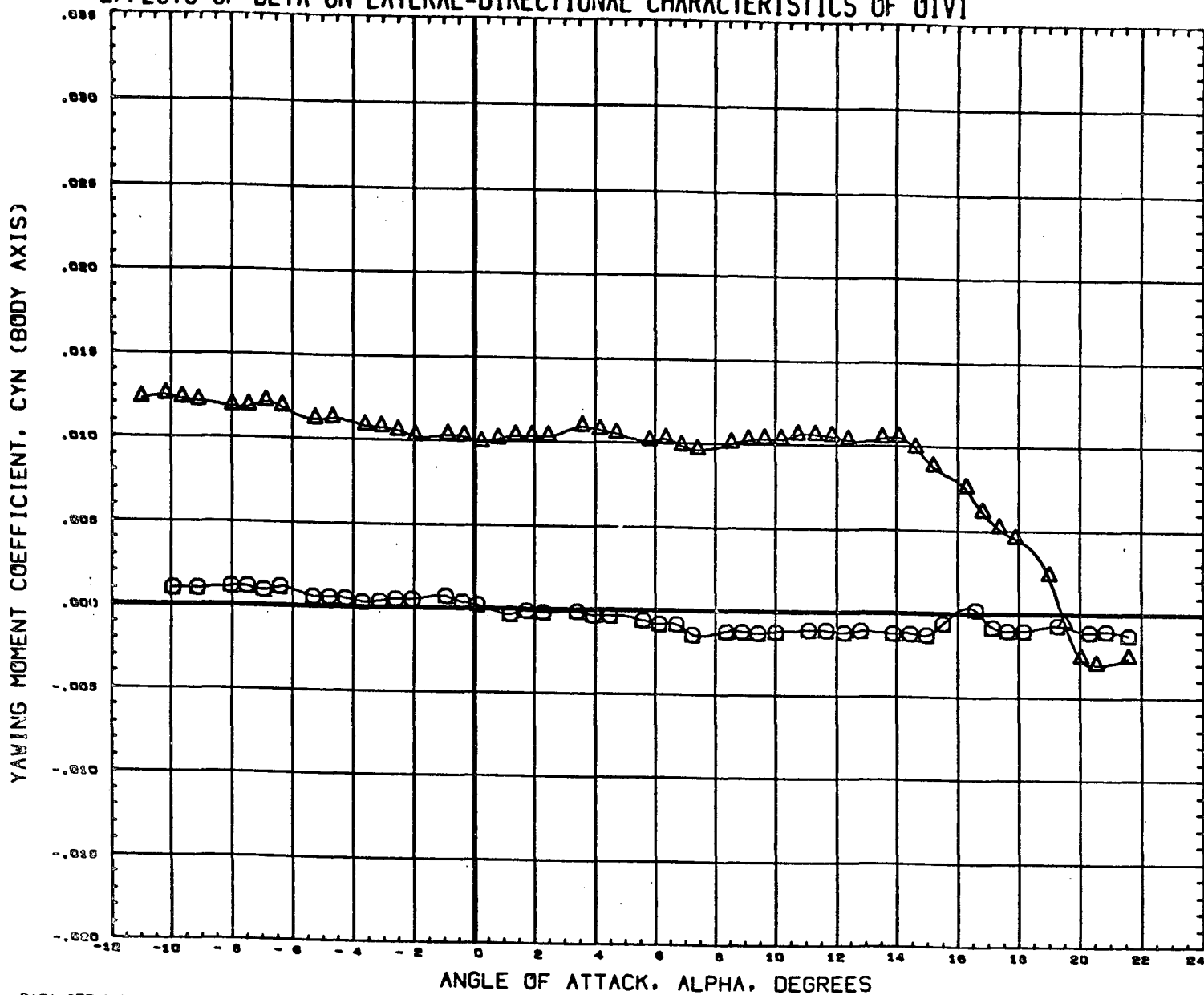


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) MDAC S-222 ORBITER ALONE 01V1
(RD7705) MDAC S-222 ORBITER ALONE 01V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) \bigcirc MDAC S-222 ORBITER ALONE O1V1
(RD7705) \triangle MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ. FT.
0.000	0.000	0.000	0.000	LREF	609.3004	IN.
				BREF	862.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

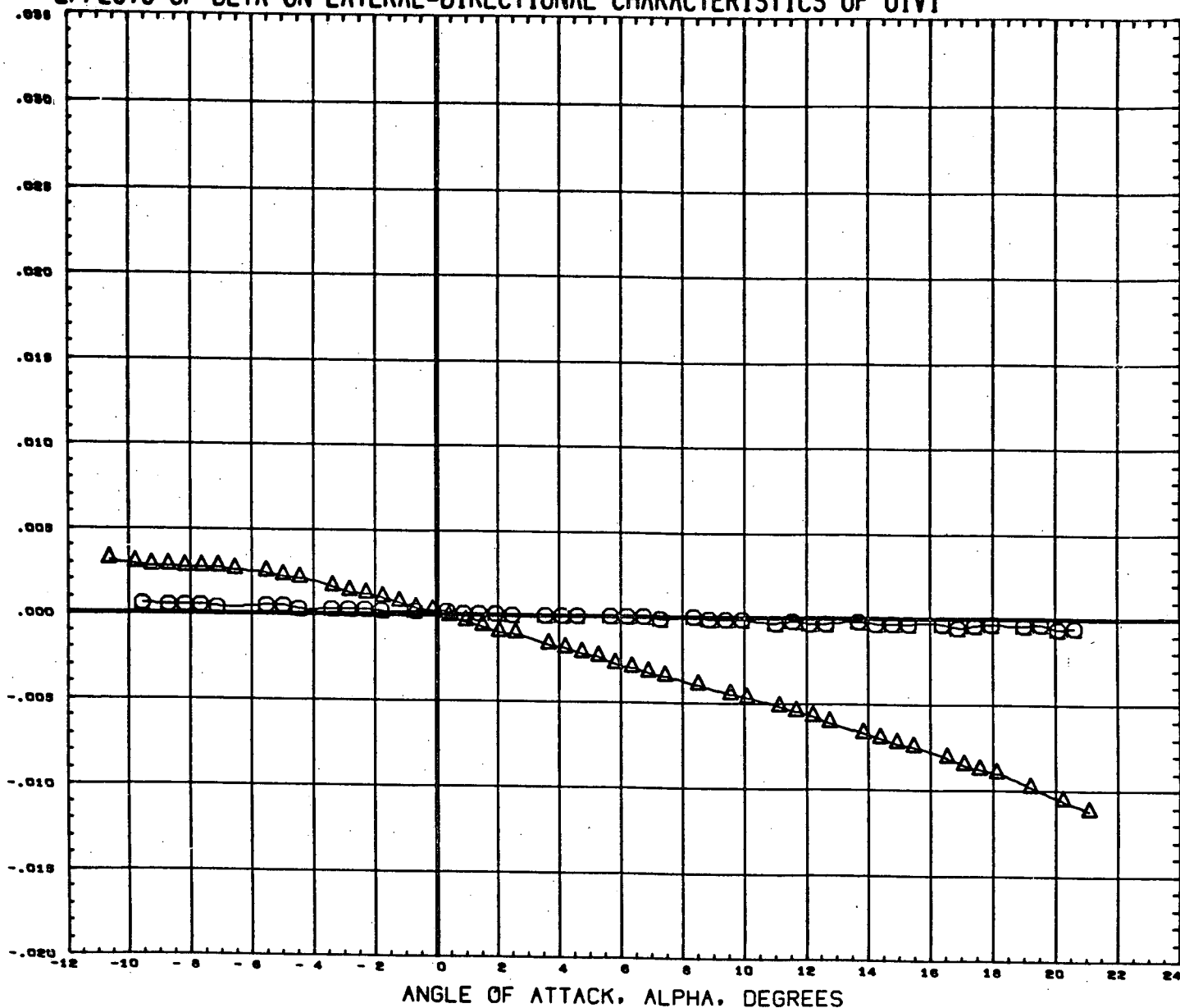
MACH

1.08

PAGE 128

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1V1

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



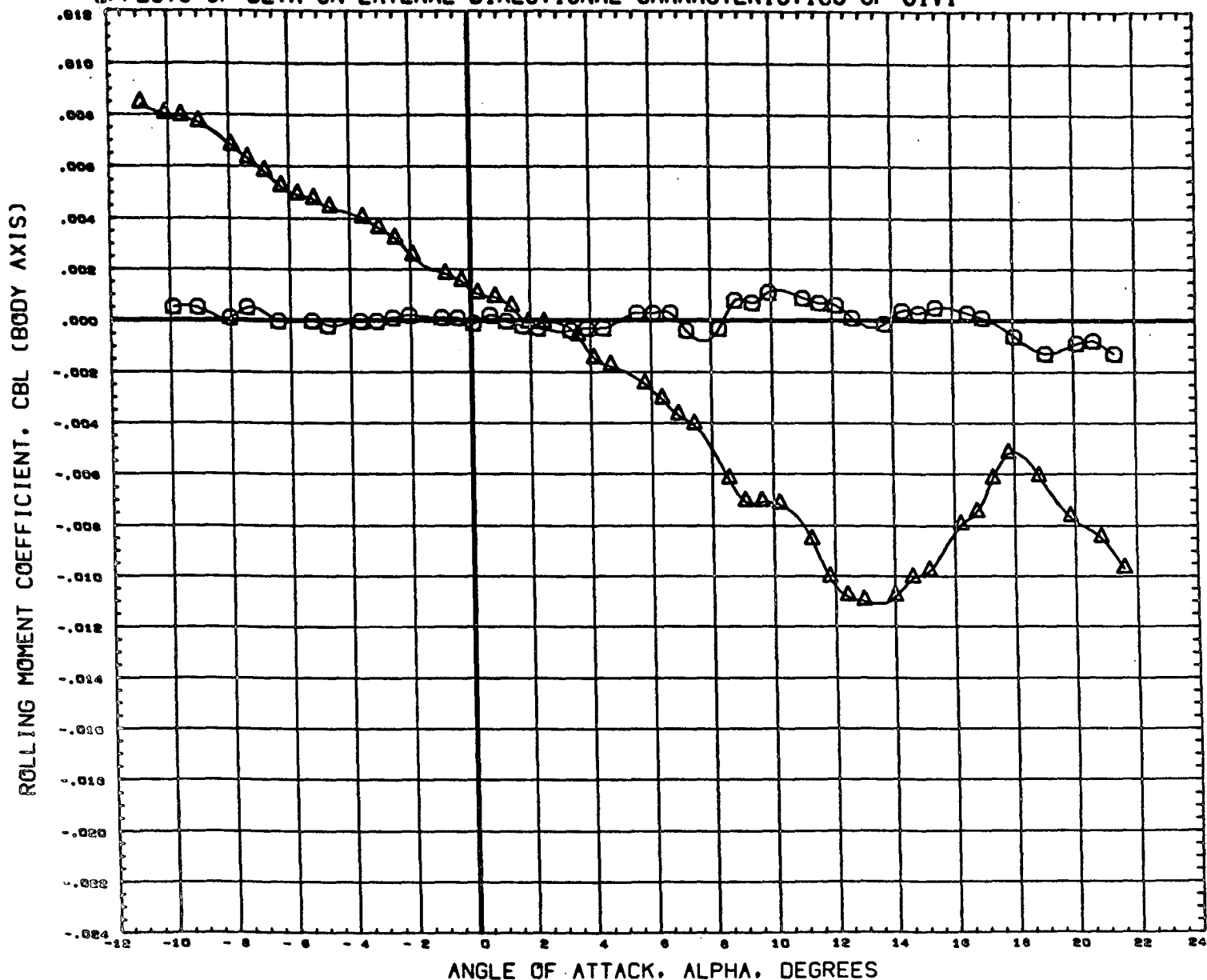
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7704) MDAC S-222 ORBITER ALONE O1V1
 (RD7705) MDAC S-222 ORBITER ALONE O1V1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF 609.3004 IN.
				BREF 862.0004 IN.
				XMRP 1066.0040 IN.
				YMRP 0.0000 IN.
				ZMRP 404.0004 IN.
				SCALE 0.0080

MACH 2.20

PAGE 129

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) MDAC S-222 ORBITER ALONE O1V1
(RD7705) MDAC S-222 ORBITER ALONE O1V1

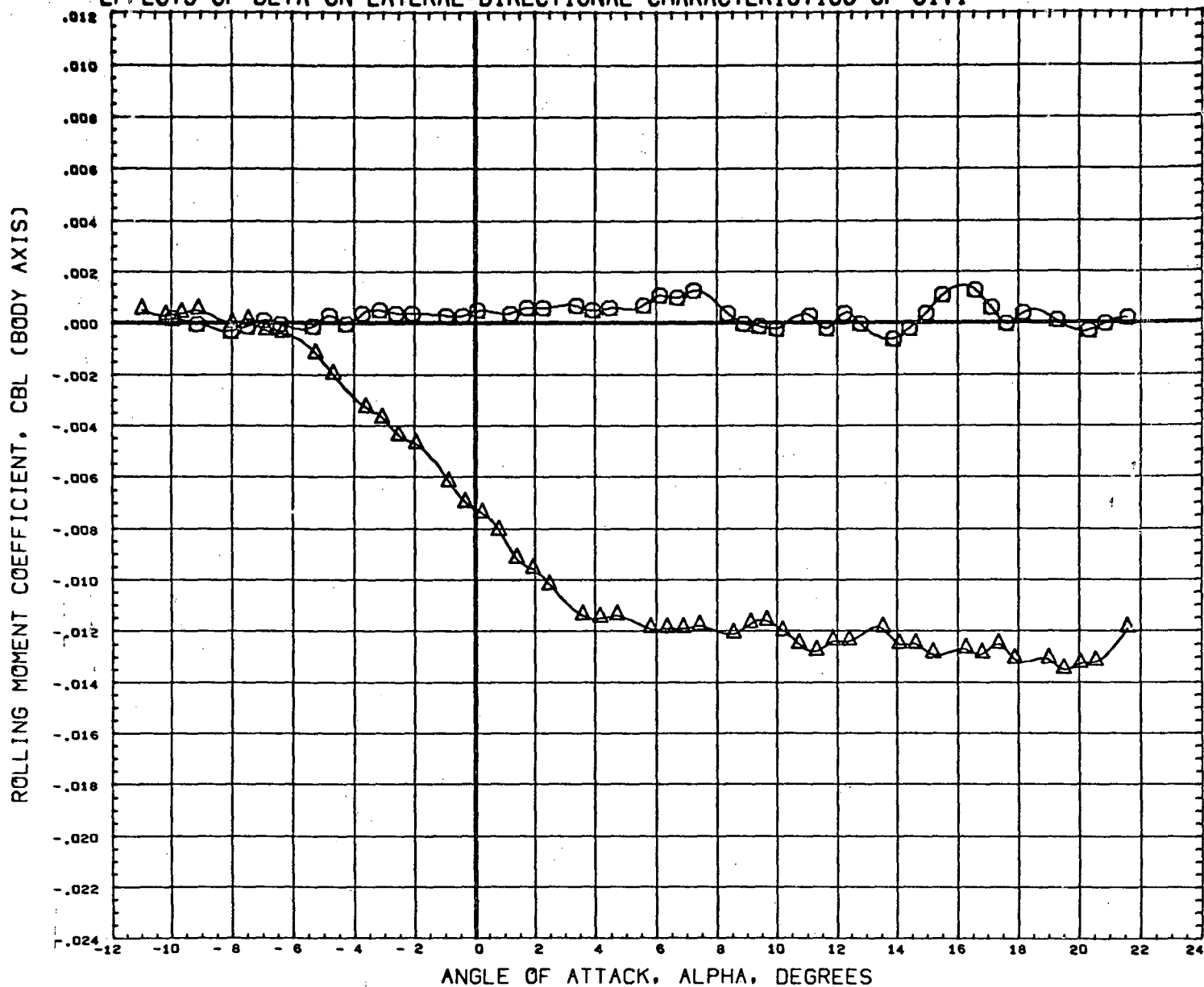
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.9004 IN.
BREF 682.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 130

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01V1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7704) ○ MDAC S-222 ORBITER ALONE 01V1
(RD7705) △ MDAC S-222 ORBITER ALONE 01V1

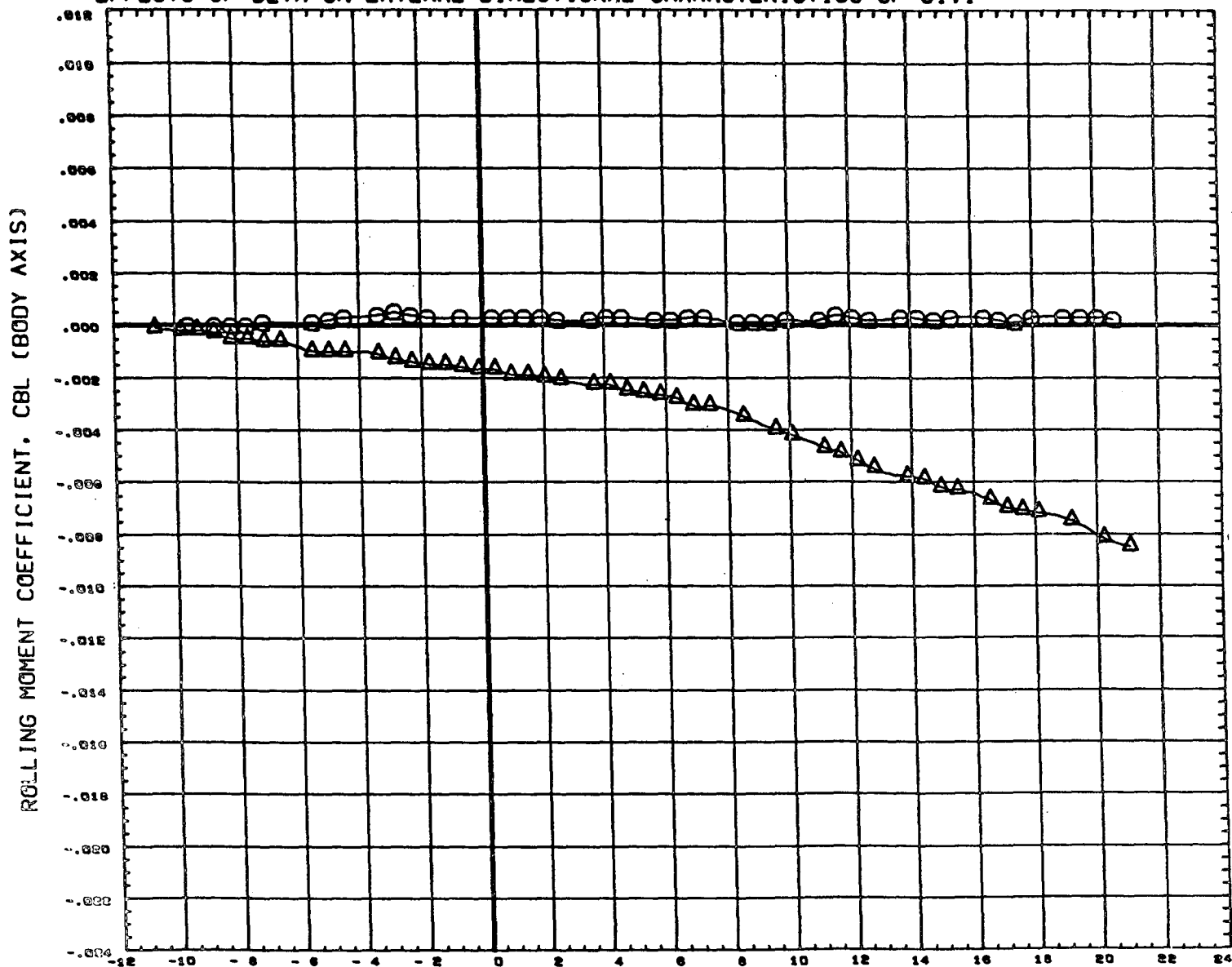
BETA	ELEVTR	AILRON	RUDDER
0.000	0.000	0.000	0.000
6.000	0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
YMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 131

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01V1



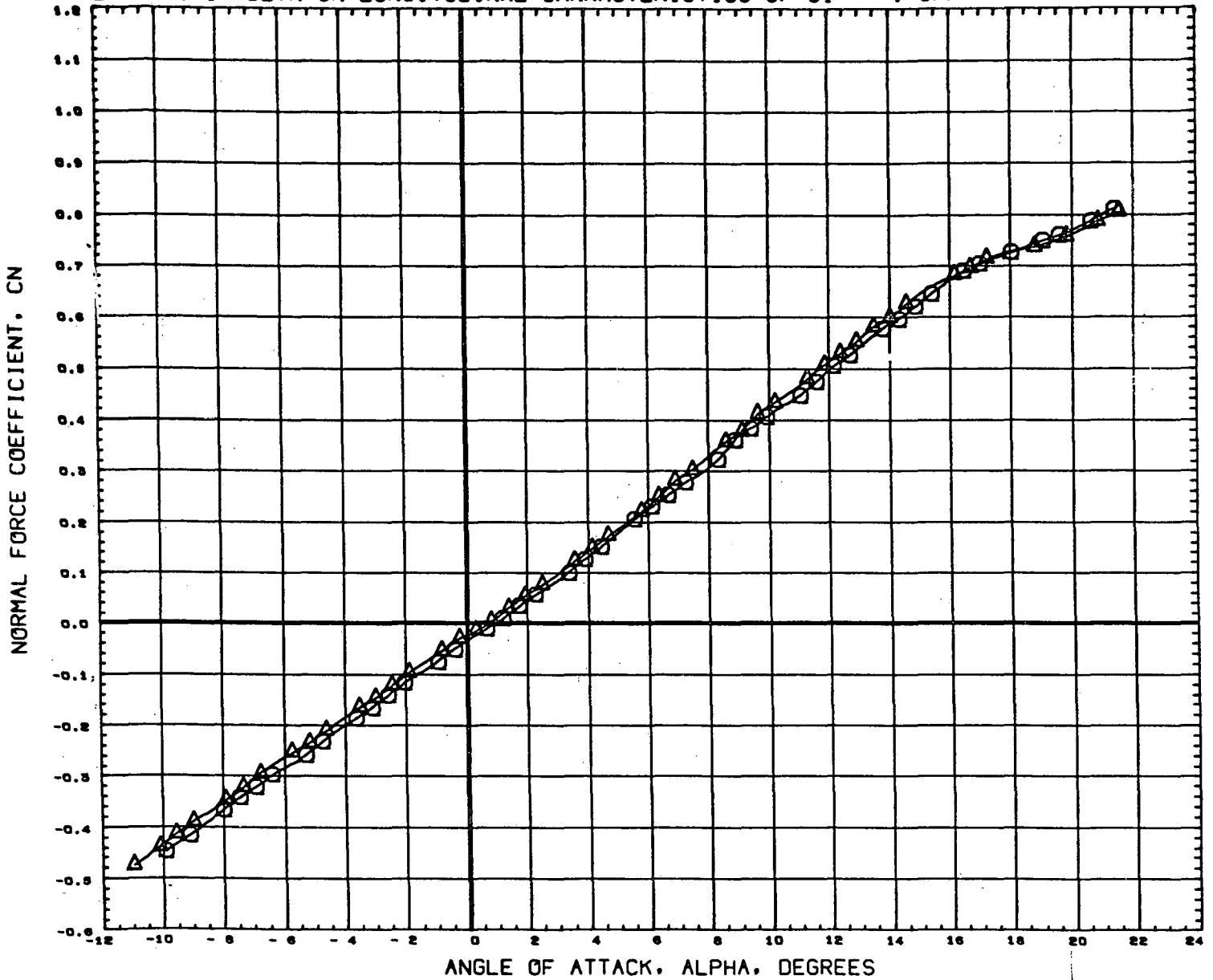
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RP7704) MDAC S-222 ORBITER ALONE 01V1
 (RP7705) MDAC S-222 ORBITER ALONE 01V1



BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ. FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 132

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707) 	MDAC S-222 ORBITER ALONE 01V OFF
(CD7708) 	MDAC S-222 ORBITER ALONE 01V OFF

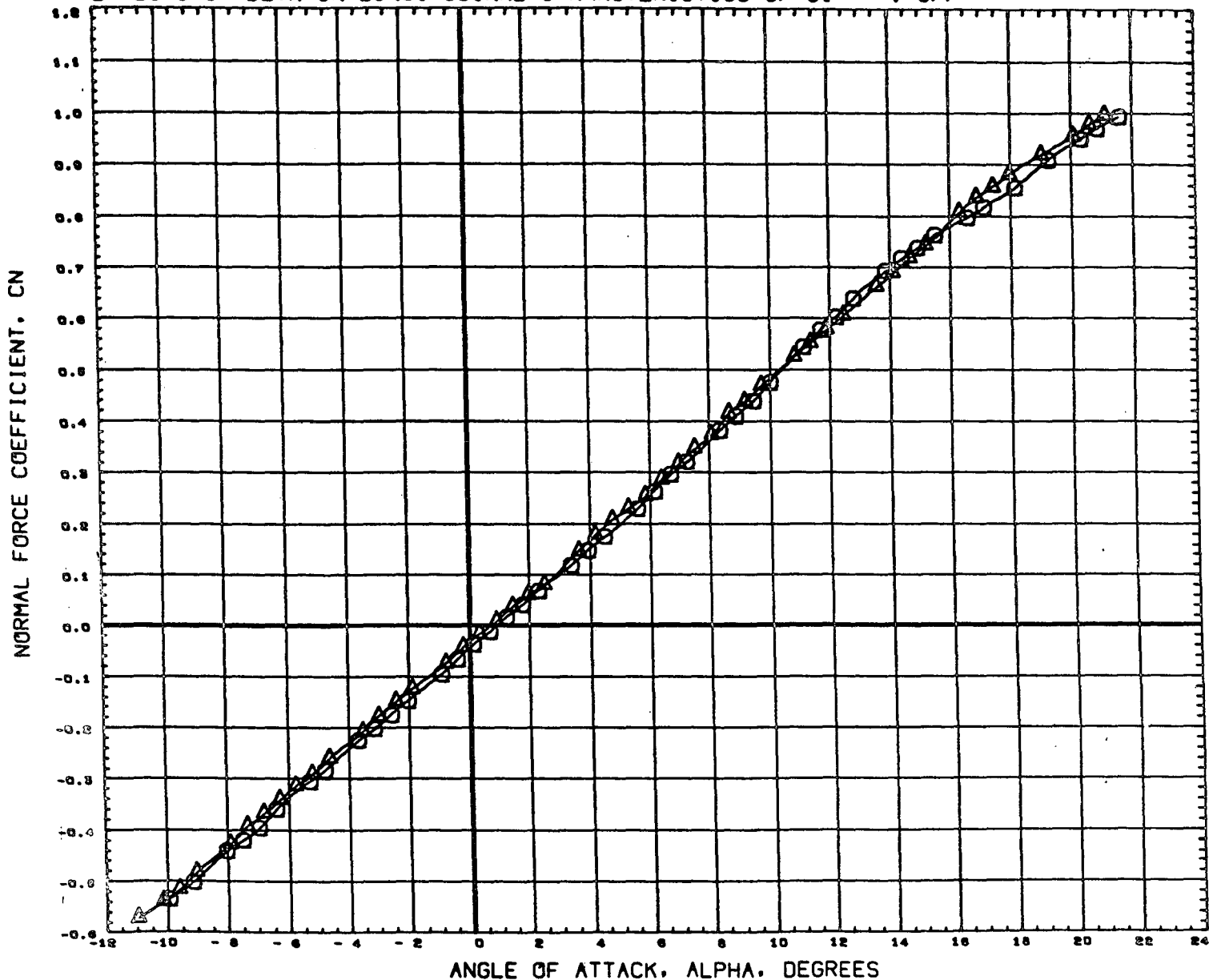
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 133

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1V OFF
(CD7708)	MDAC S-222 ORBITER ALONE O1V OFF

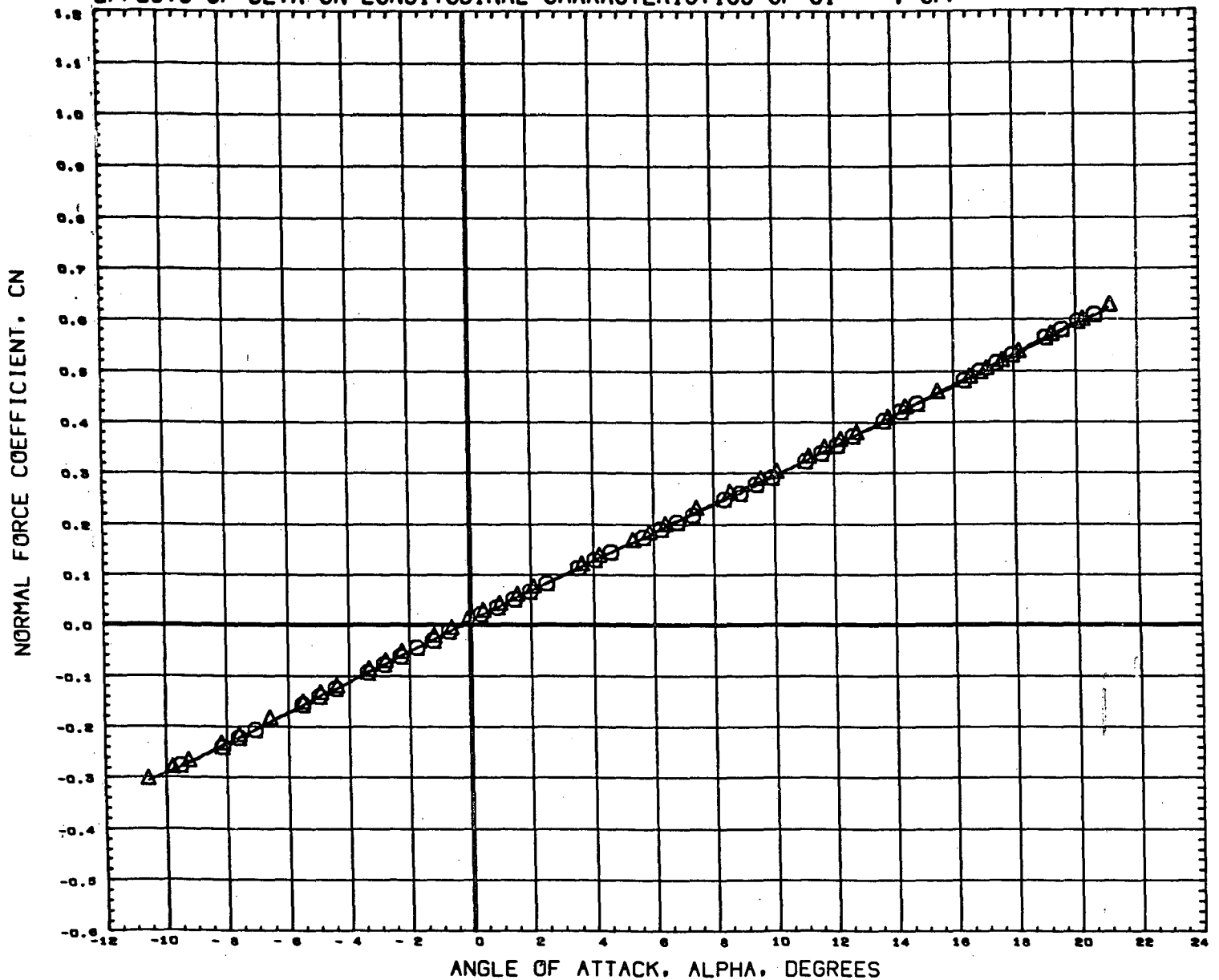
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRF	1066.0040	IN.
YMRF	0.0000	IN.
ZMRF	404.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 134

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1VOFF
(CD7708)	MDAC S-222 ORBITER ALONE O1VOFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
8.000	0.000	0.000

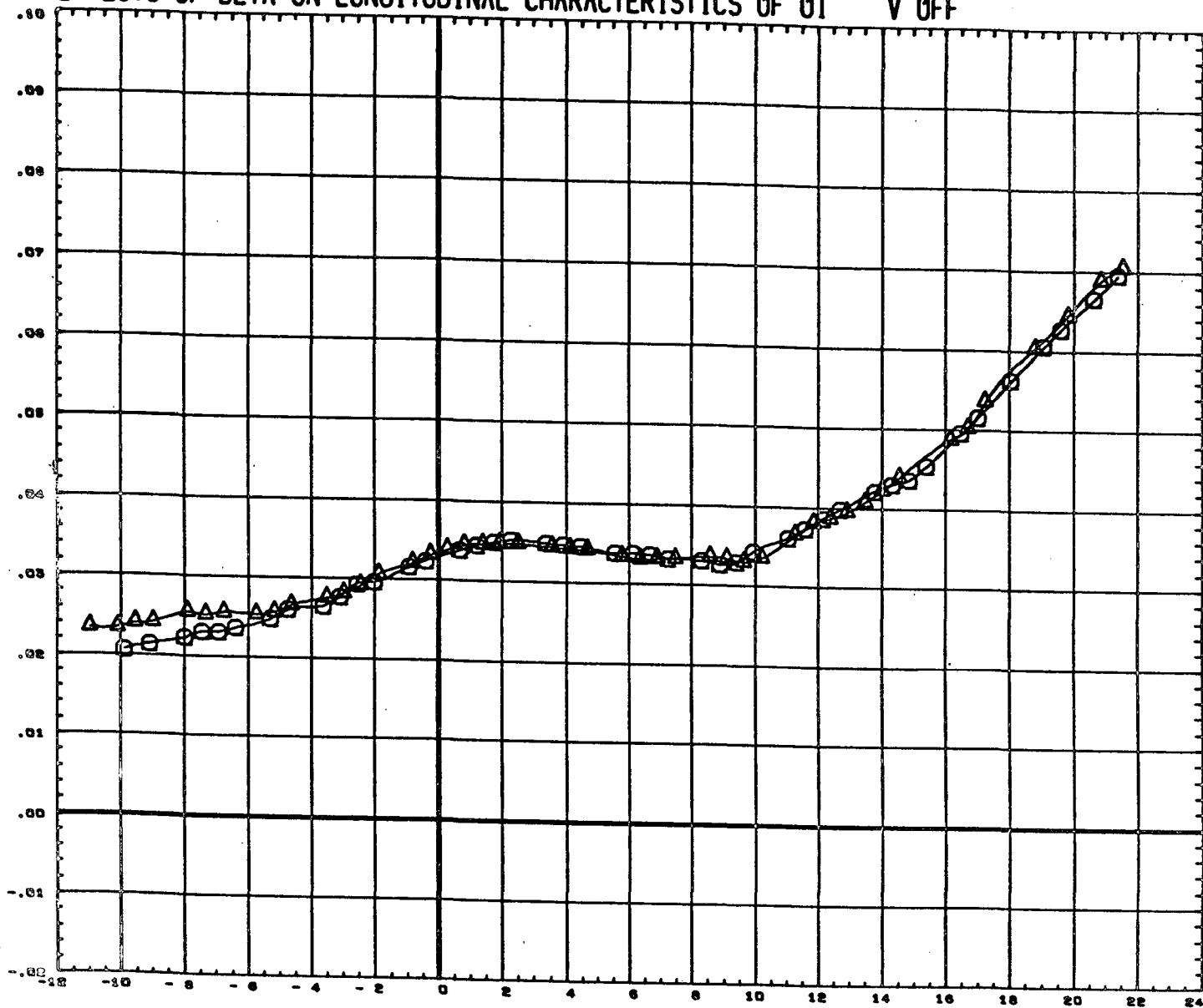
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	885.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	



MACH 2.20

PAGE 135

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

AXIAL FORCE COEFFICIENT, CA



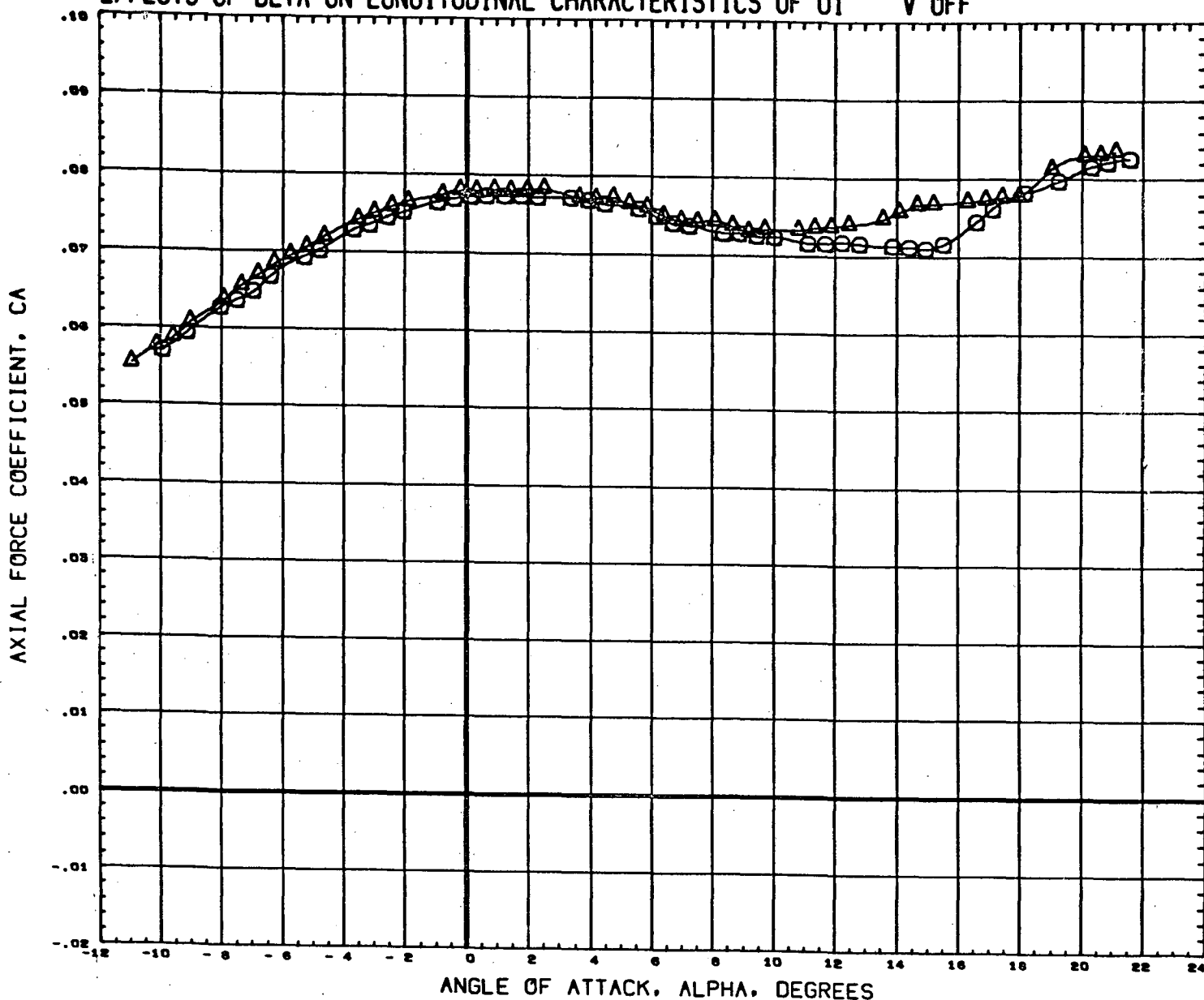
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707)  MDAC S-222 ORBITER ALONE O1VOFF
 (CD7708)  MDAC S-222 ORBITER ALONE O1VOFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE O1V OFF
 (CD7708) MDAC S-222 ORBITER ALONE O1V OFF

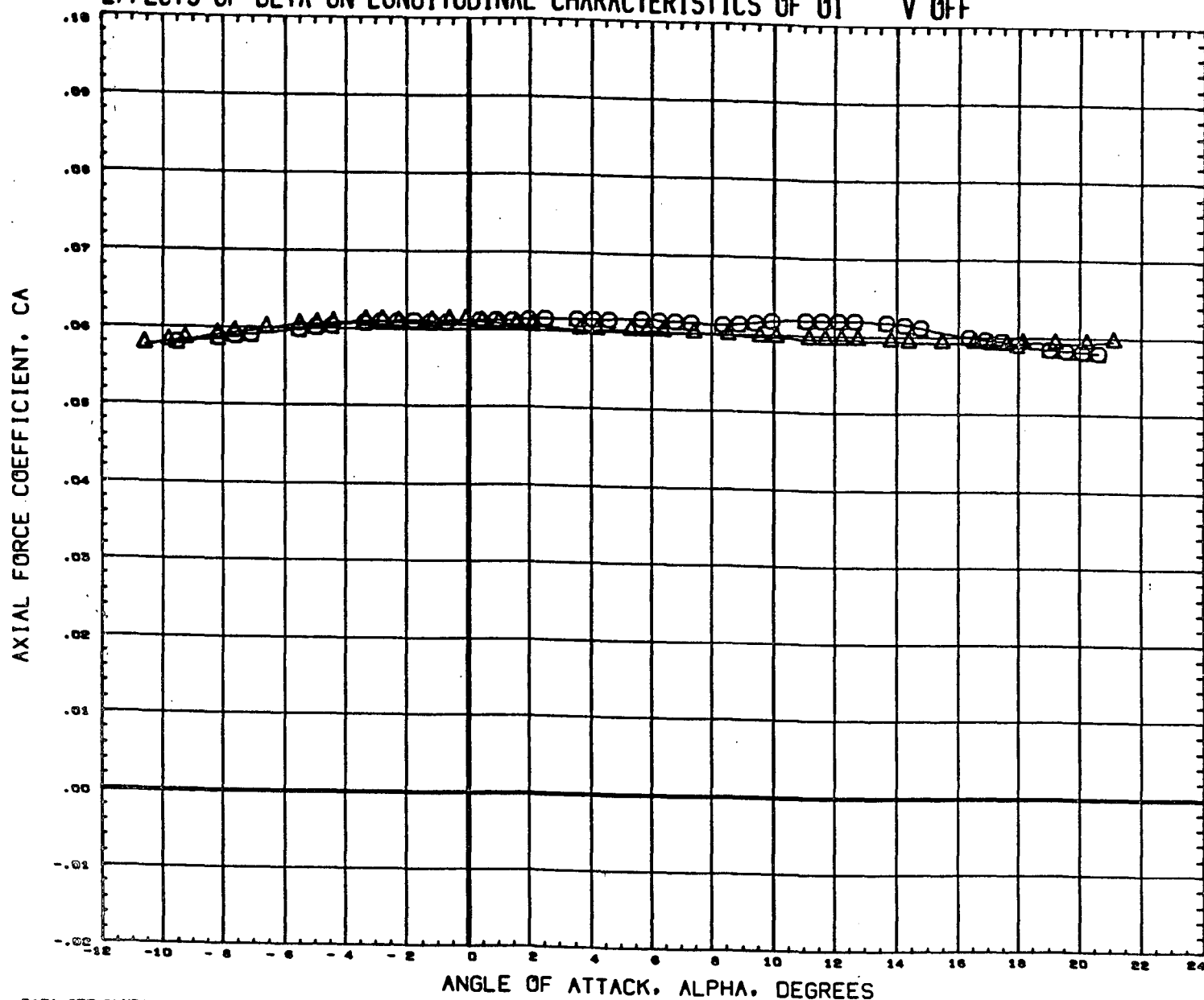
BETA ELEVTR AILRON
 0.000 0.000 0.000
 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH

1 OR

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7707) MDAC S-222 ORBITER ALONE 01VOFF
(CD7708) MDAC S-222 ORBITER ALONE 01VOFF

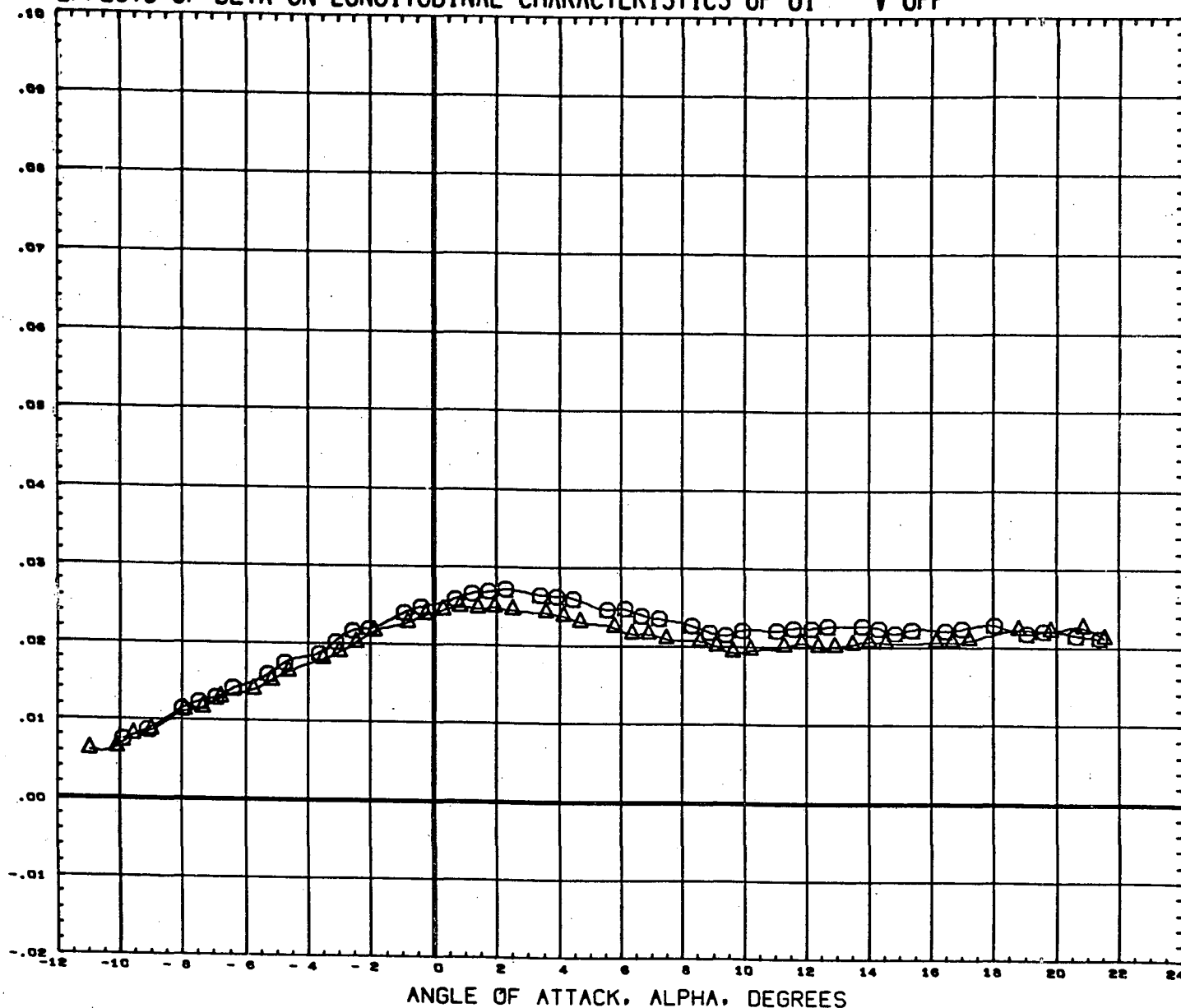
BETA ELEVTR AILRON
0.000 0.000 0.000
6.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.8004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 2.20

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) ○ MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) Δ MDAC S-222 ORBITER ALONE 01V OFF

BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

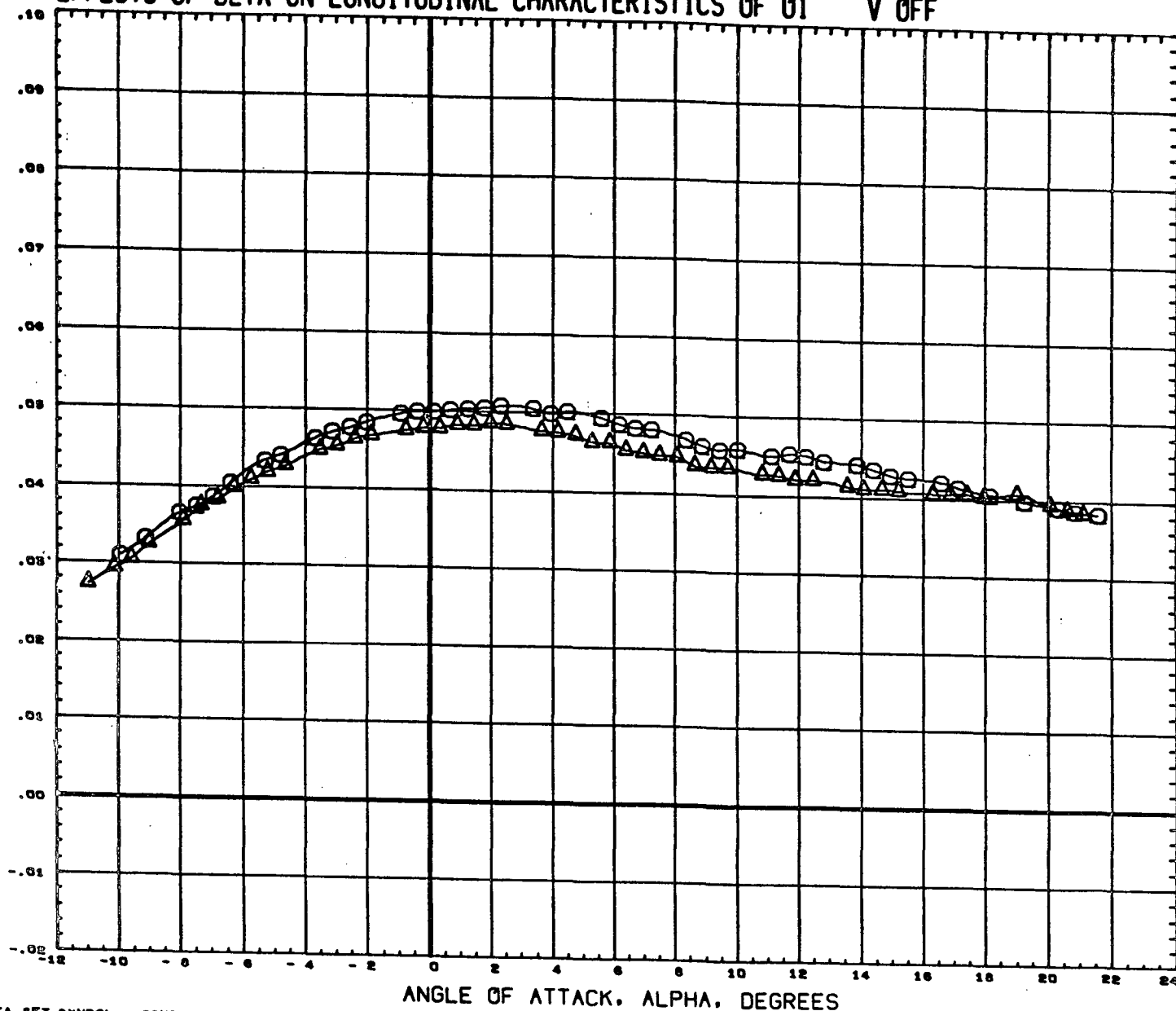
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 809.3004 IN.
 BREF 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 139

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

FOREBODY AXIAL FORCE COEFFICIENT, CAF



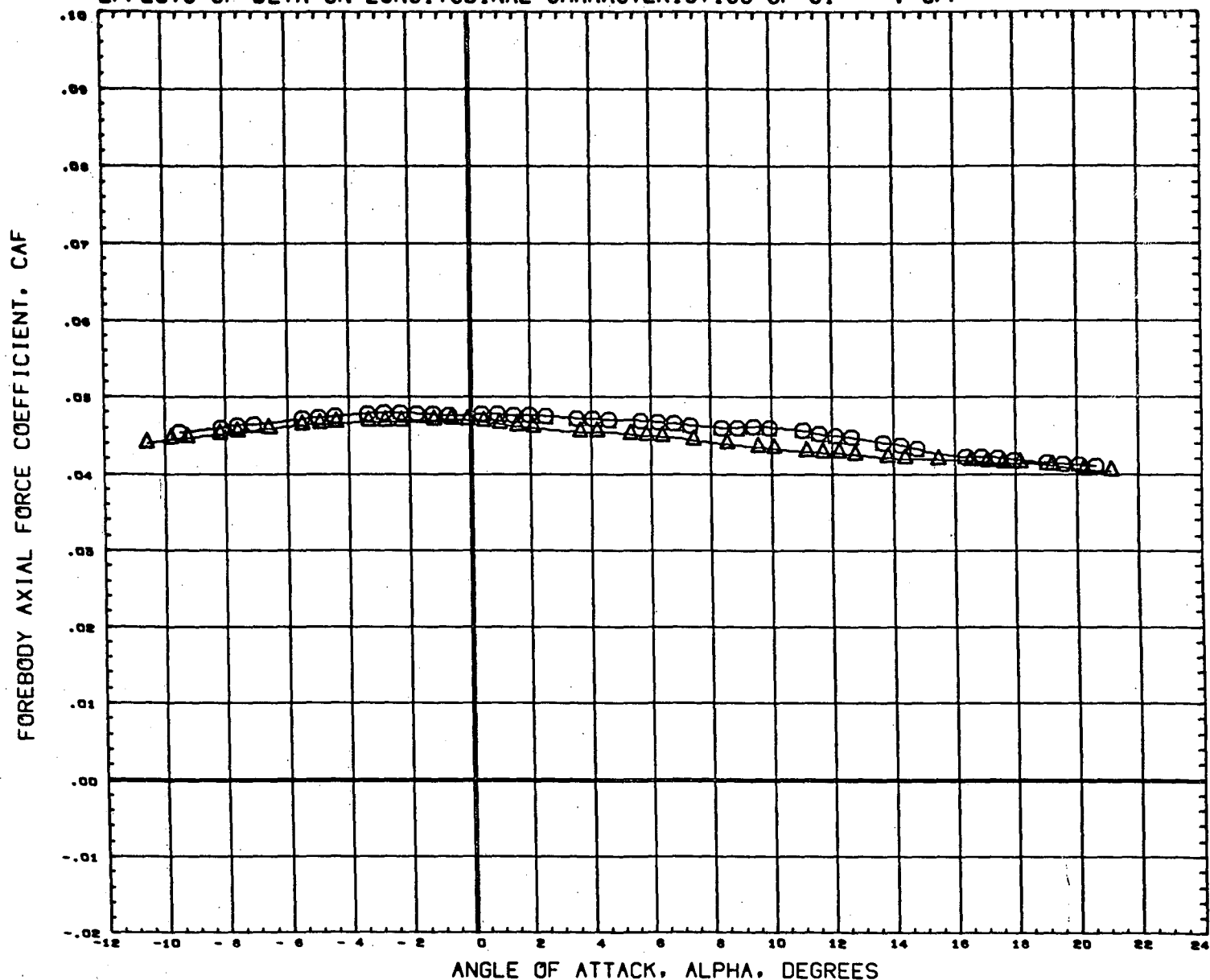
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) \bigcirc MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) \triangle MDAC S-222 ORBITER ALONE 01V OFF

BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 809.3004 IN.
 BREF 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 1.08

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1VOFF
(CD7708)	MDAC S-222 ORBITER ALONE O1VOFF

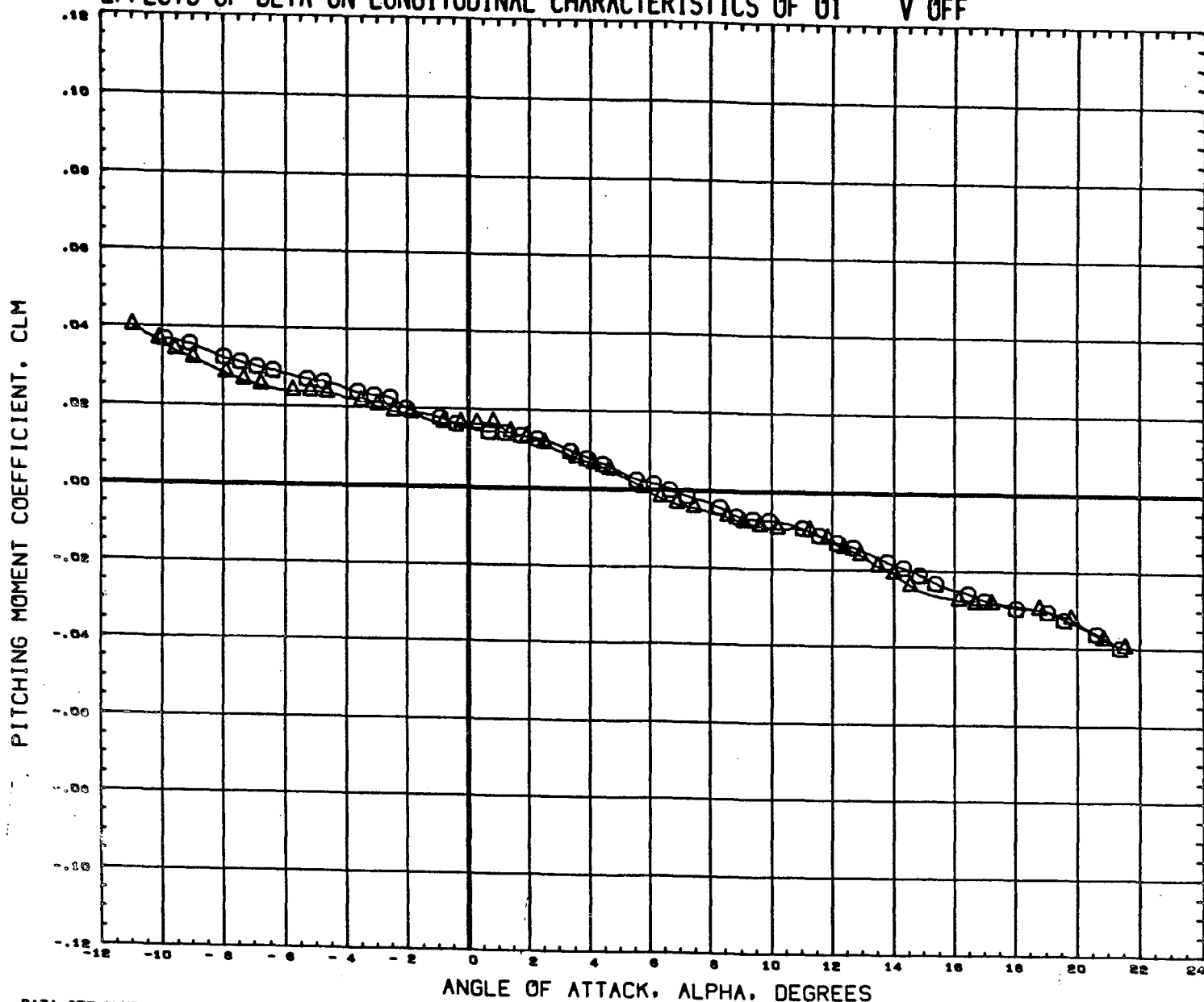
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	887.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 141

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



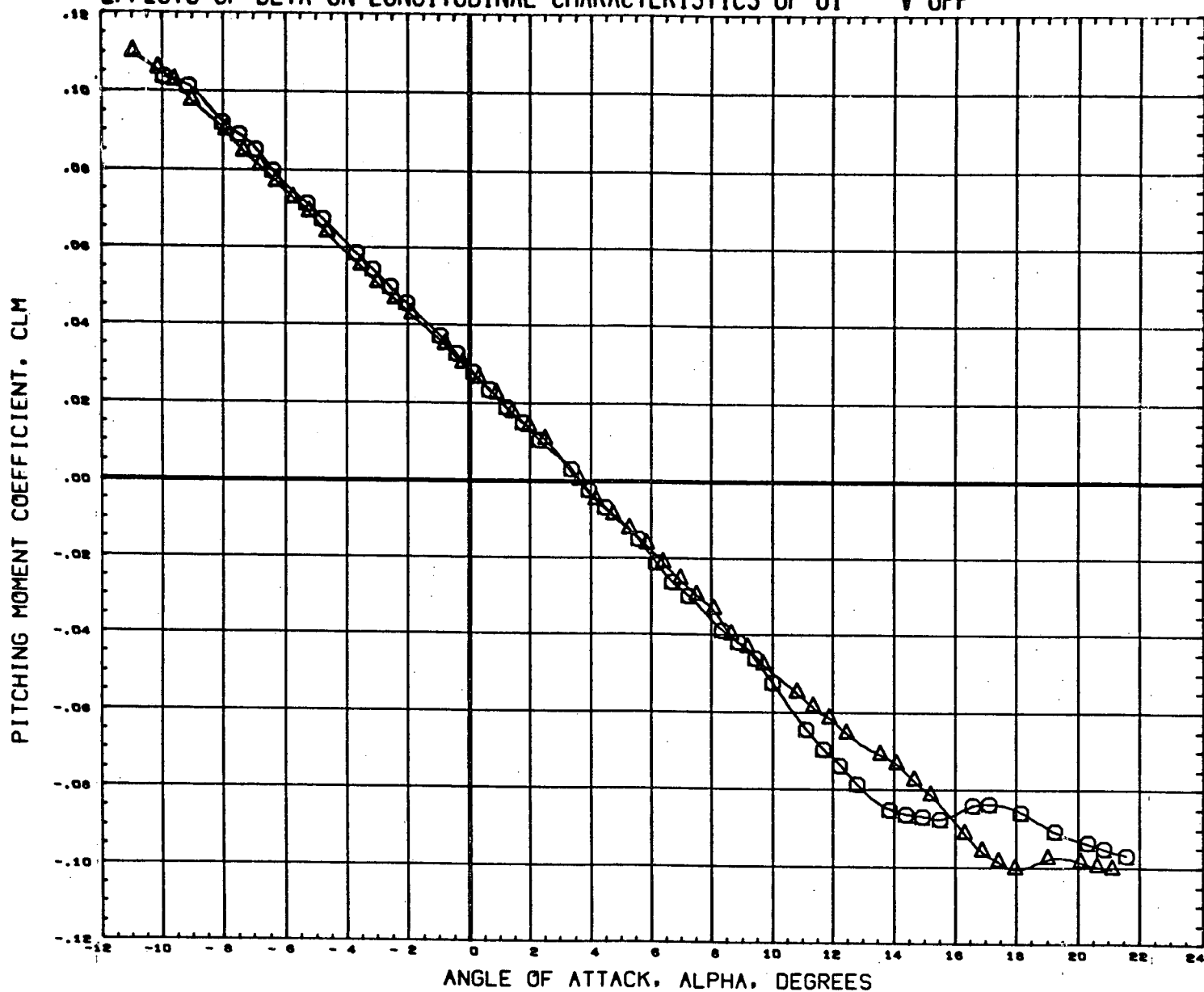
DATA SET SYMBOL: CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE O1V OFF
 (CD7708) MDAC S-222 ORBITER ALONE O1V OFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.3004	IN.
BREF	862.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7707) MDAC S-222 ORBITER ALONE O1V OFF
(CD7708) MDAC S-222 ORBITER ALONE O1V OFF

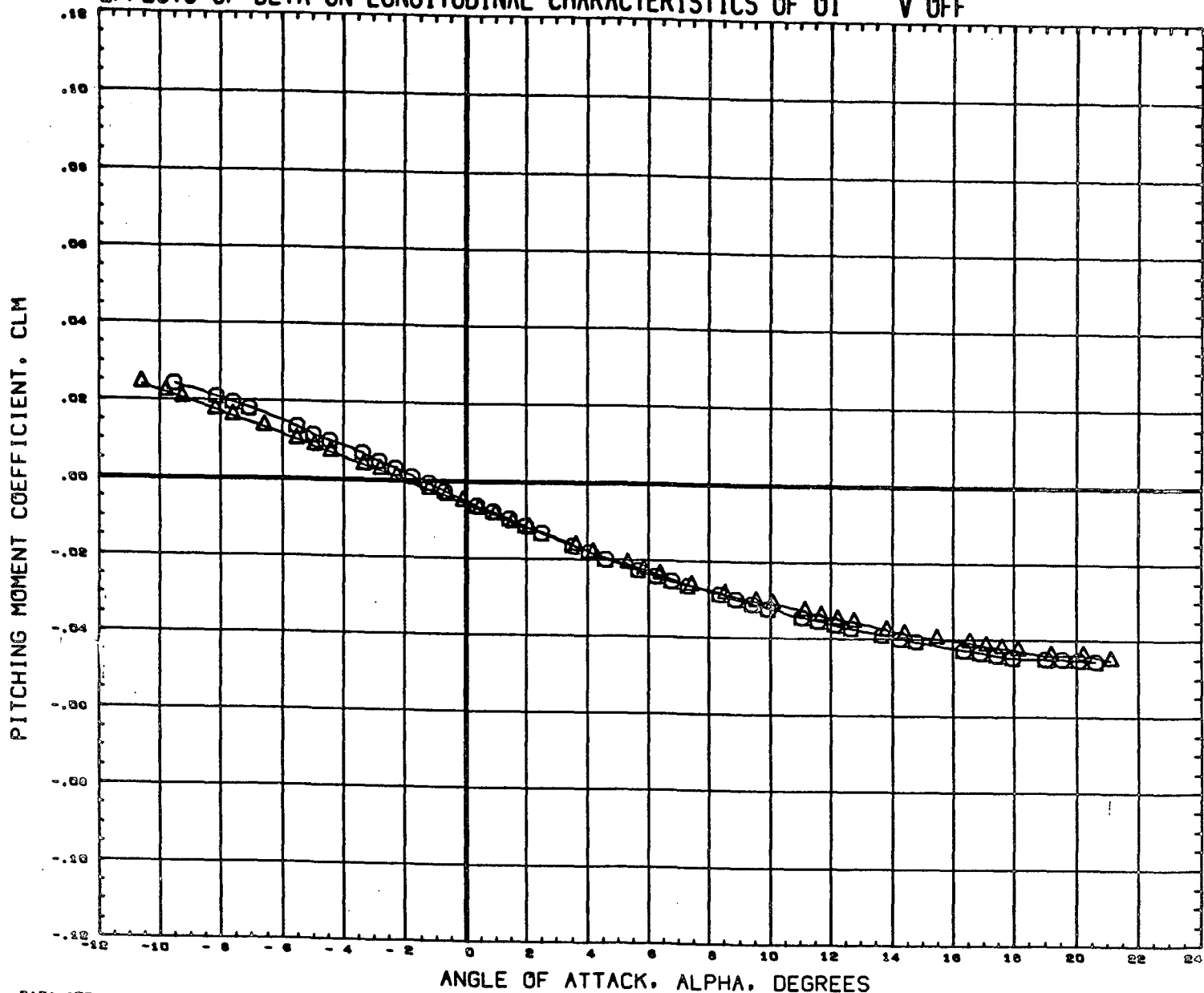
BETA ELEVTR AILRON
0.000 0.000 0.000
6.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 862.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0000

MACH 1.08

PAGE 143

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) MDAC S-222 ORBITER ALONE 01V OFF

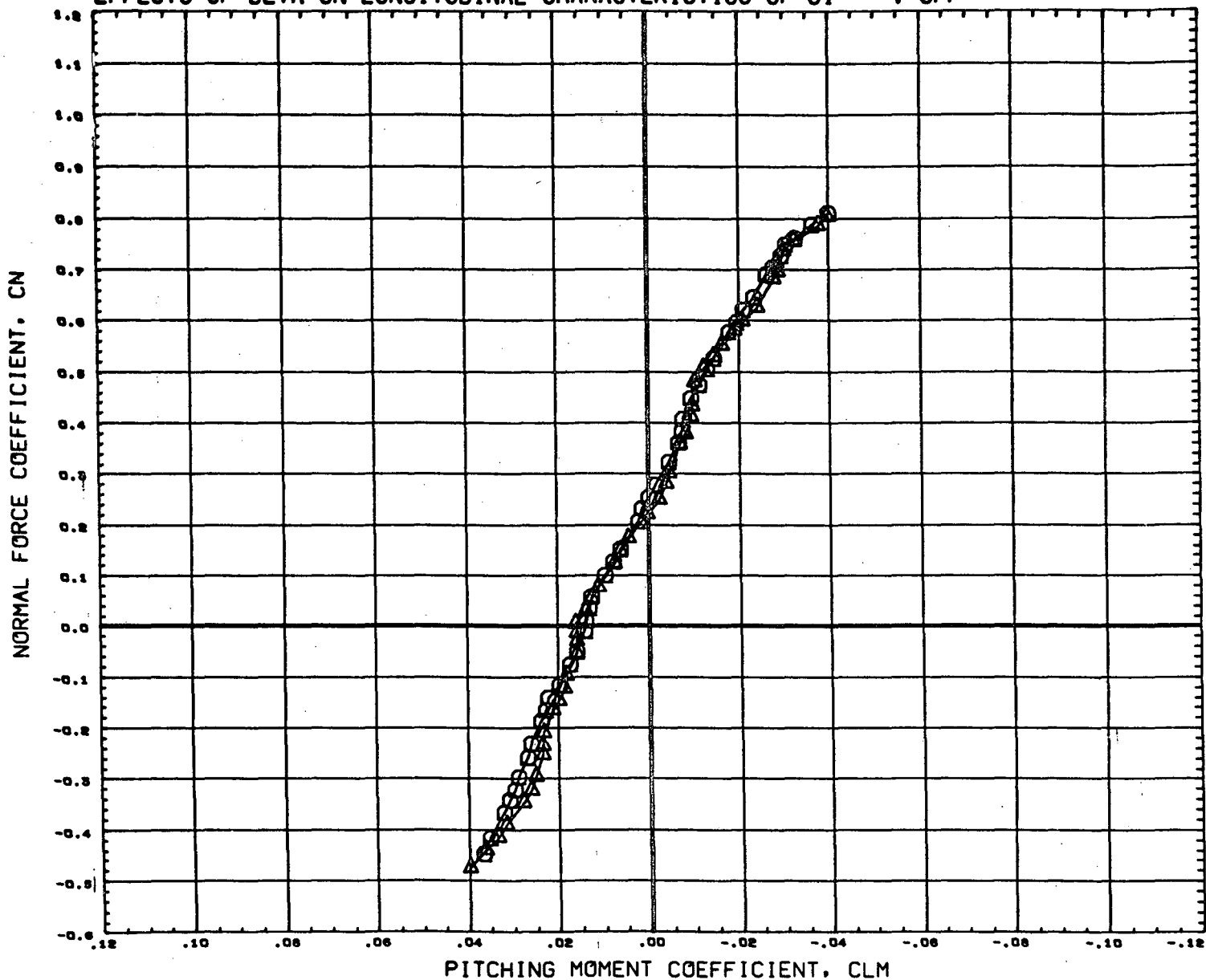
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1088.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 2.20

PAGE 144

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE 01VOFF
(CD7708)	MDAC S-222 ORBITER ALONE 01VOFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

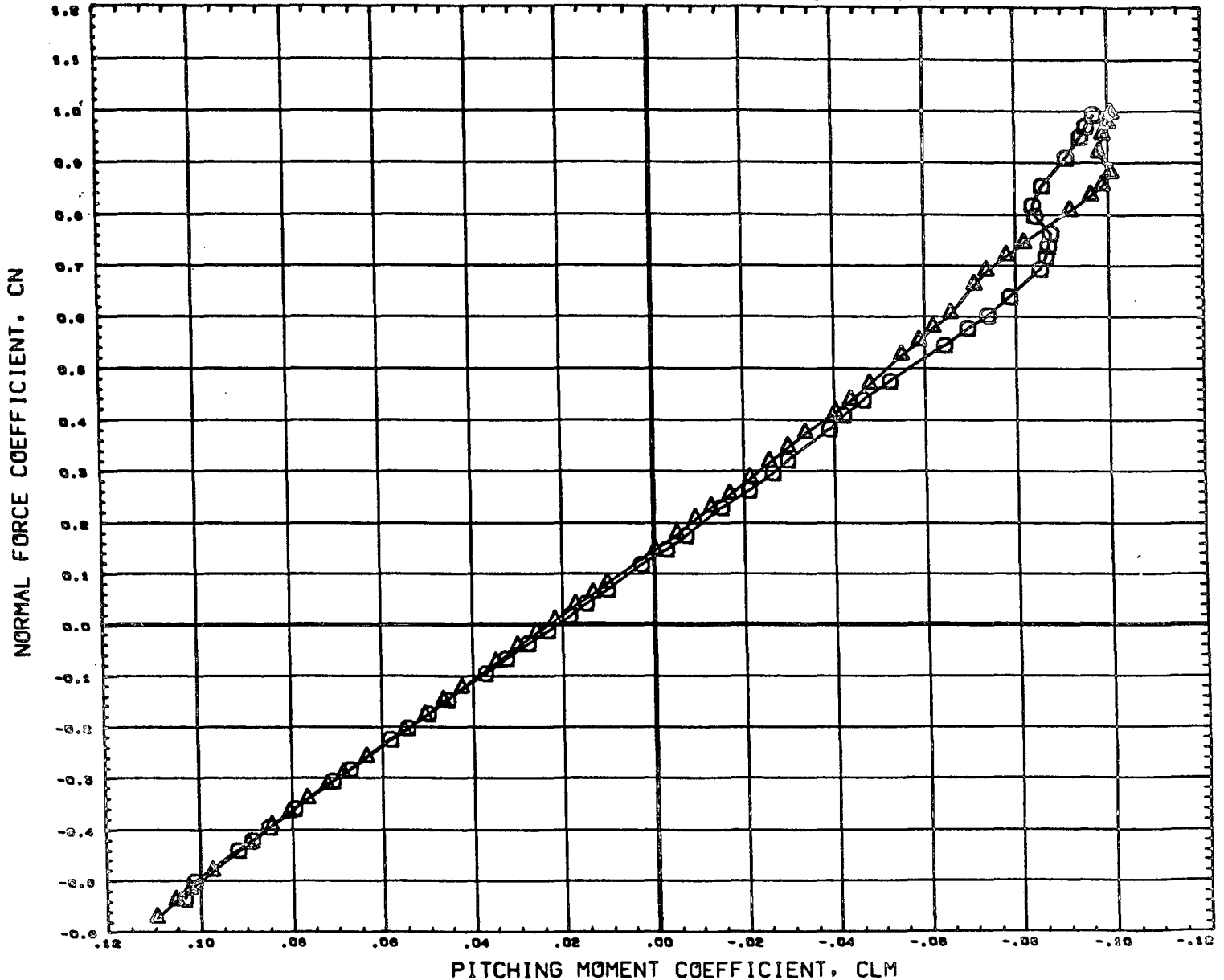
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	1063.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 145

C. 4

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(CD7707) MDAC S-222 ORBITER ALONE 01VOFF
(CD7708) MDAC S-222 ORBITER ALONE 01VOFF

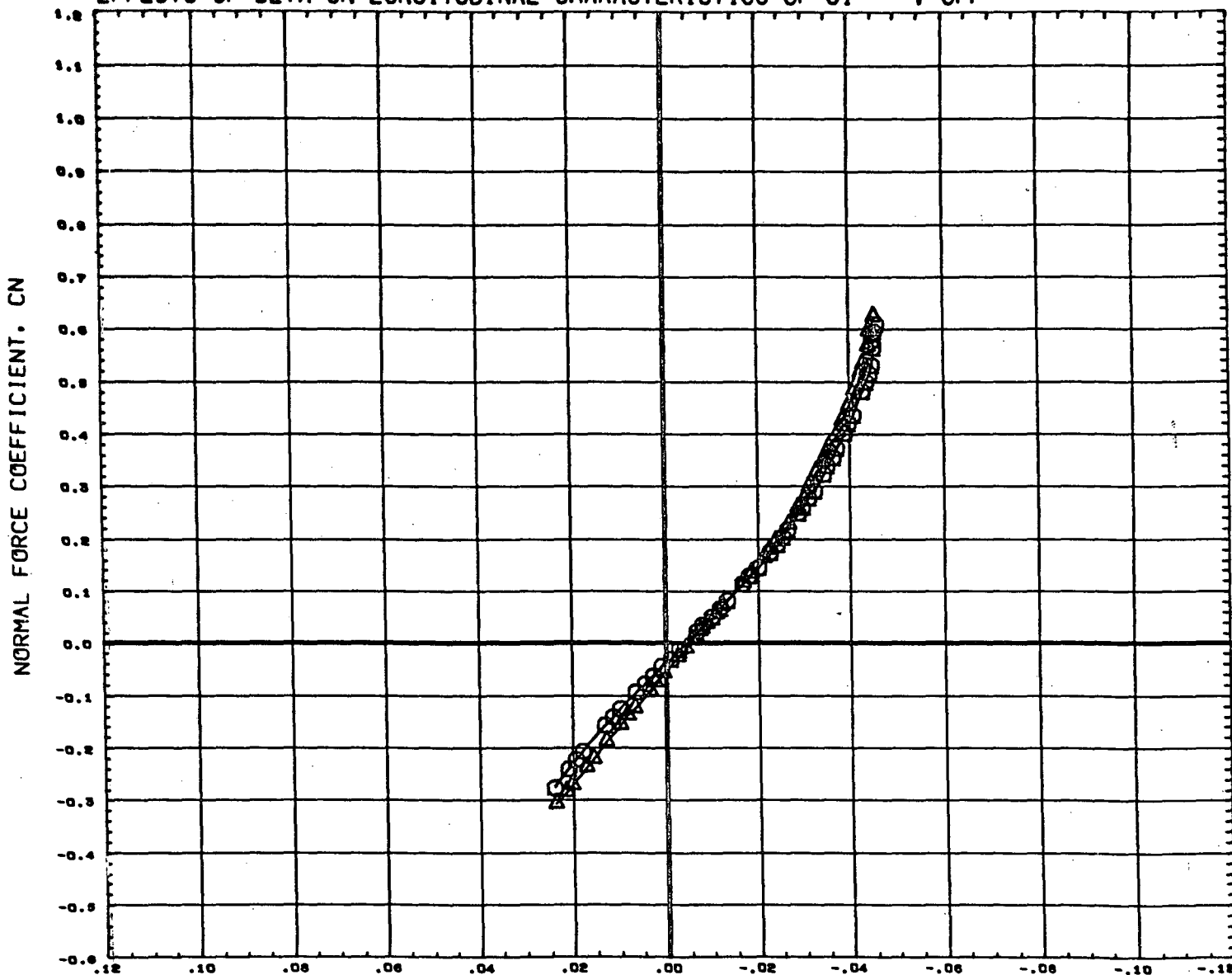
BETA ELEVTR AILRON
0.000 0.000 0.000
6.000 0.000 0.000

REFERENCE INFORMATION
SREF 3159.3040 SQ.FT.
LREF 609.5004 IN.
BREF 662.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 146

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1V OFF
(CD7708)	MDAC S-222 ORBITER ALONE O1V OFF

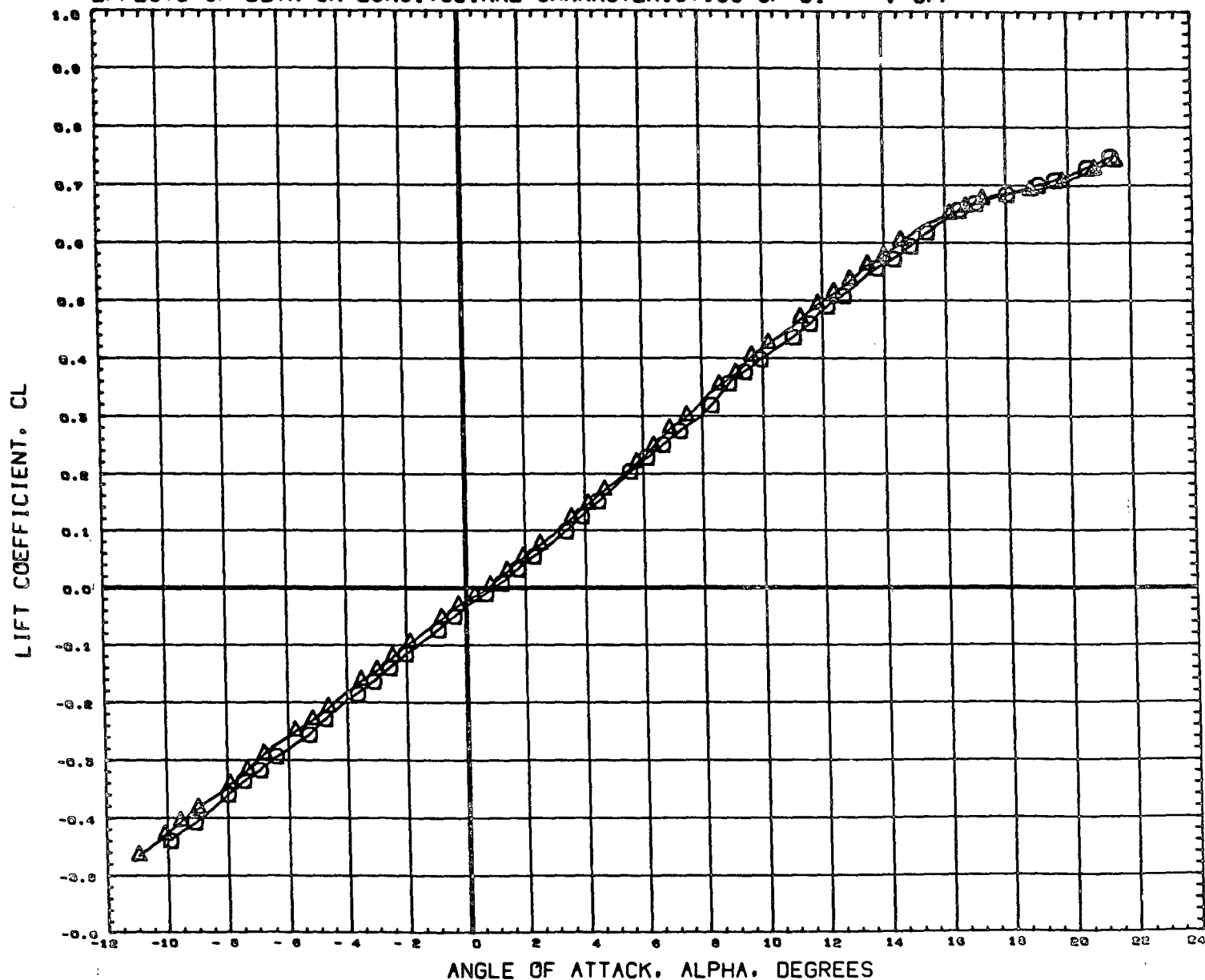
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 147

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1V OFF
(CD7708)	MDAC S-222 ORBITER ALONE O1V OFF

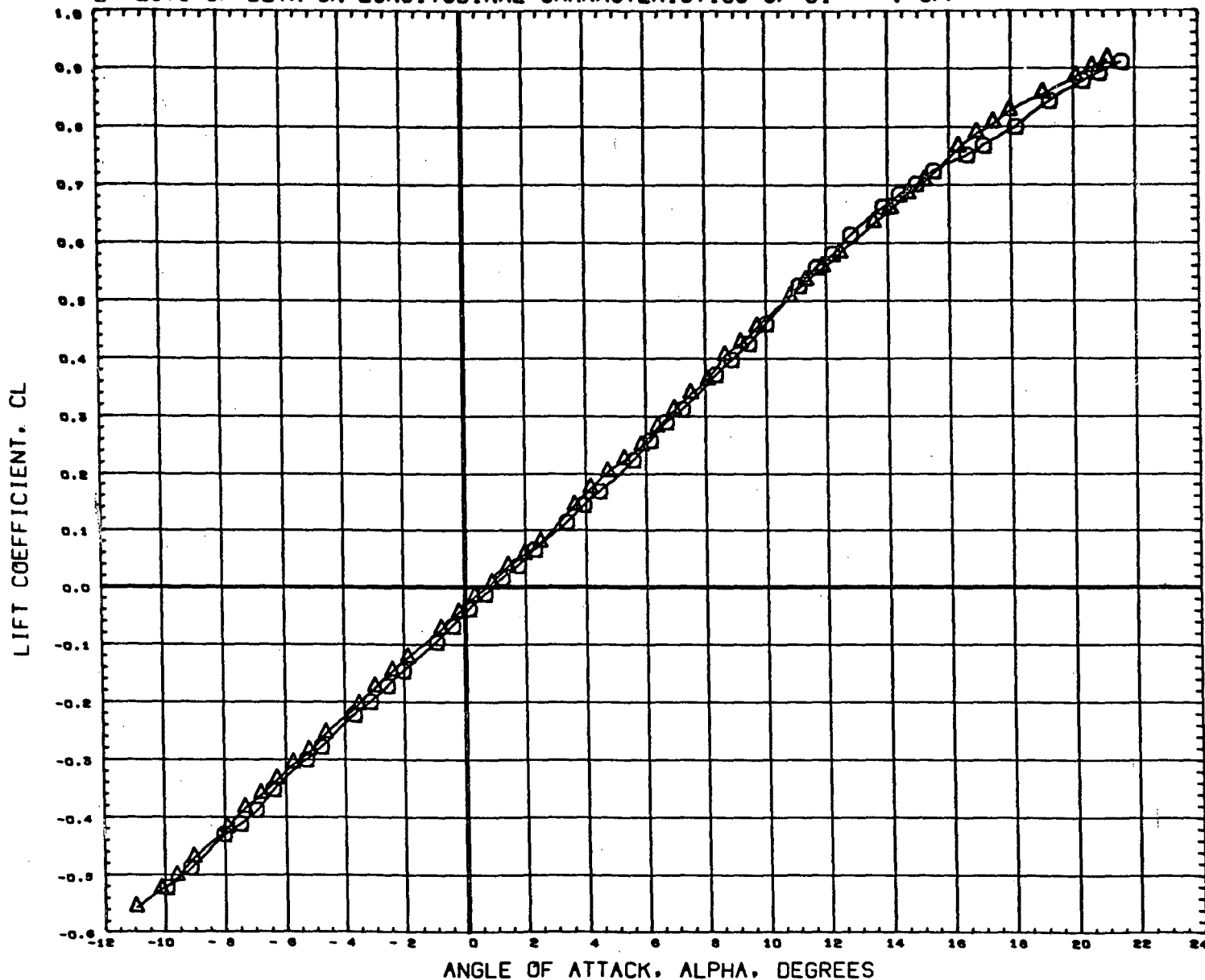
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	1000.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 148

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707) ○	MDAC S-222 ORBITER ALONE O1VOFF
(CD7708) △	MDAC S-222 ORBITER ALONE O1VOFF

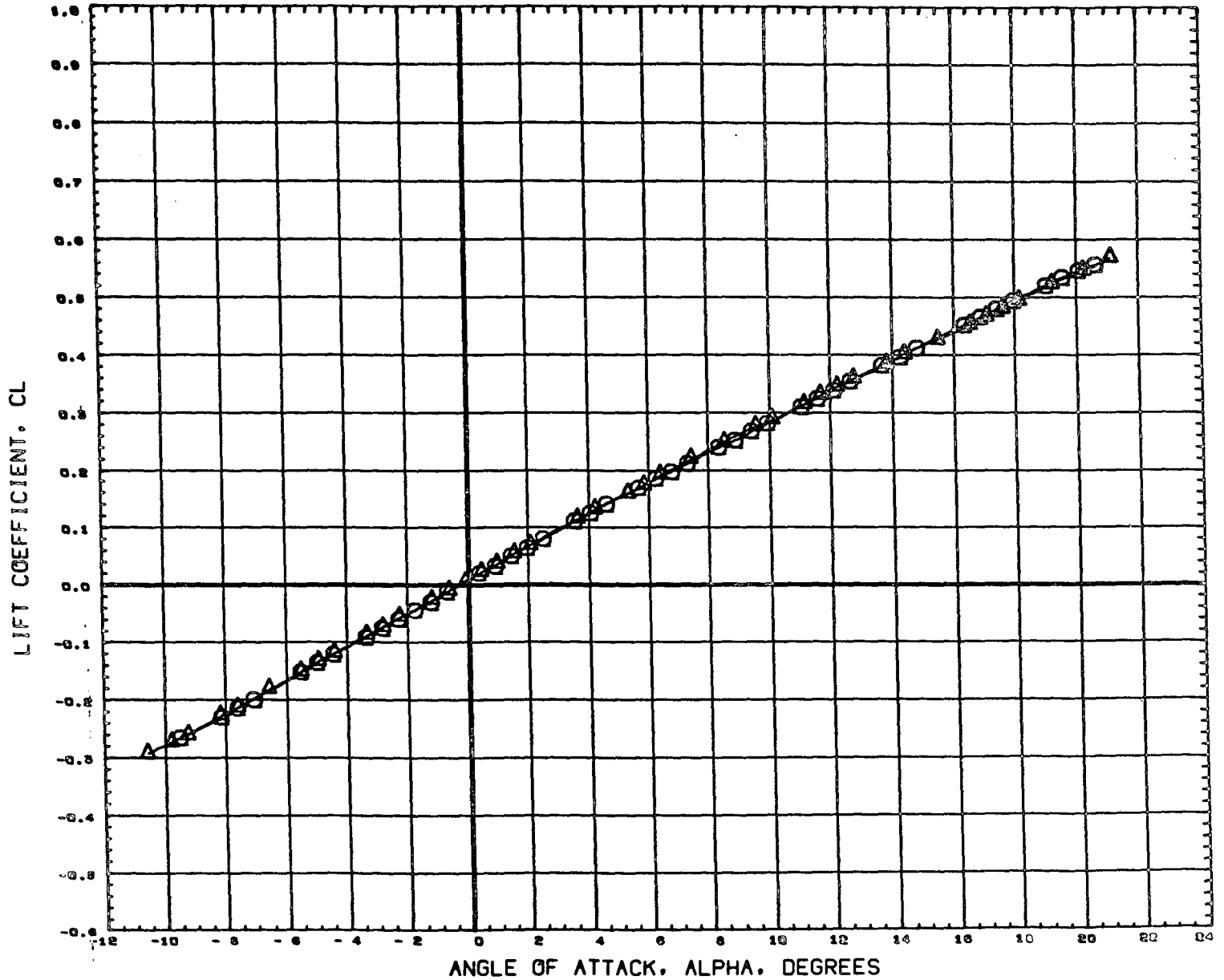
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 149

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07707)	MDAC S-222 ORBITER ALONE 01VOFF
(C07708)	MDAC S-222 ORBITER ALONE 01VOFF

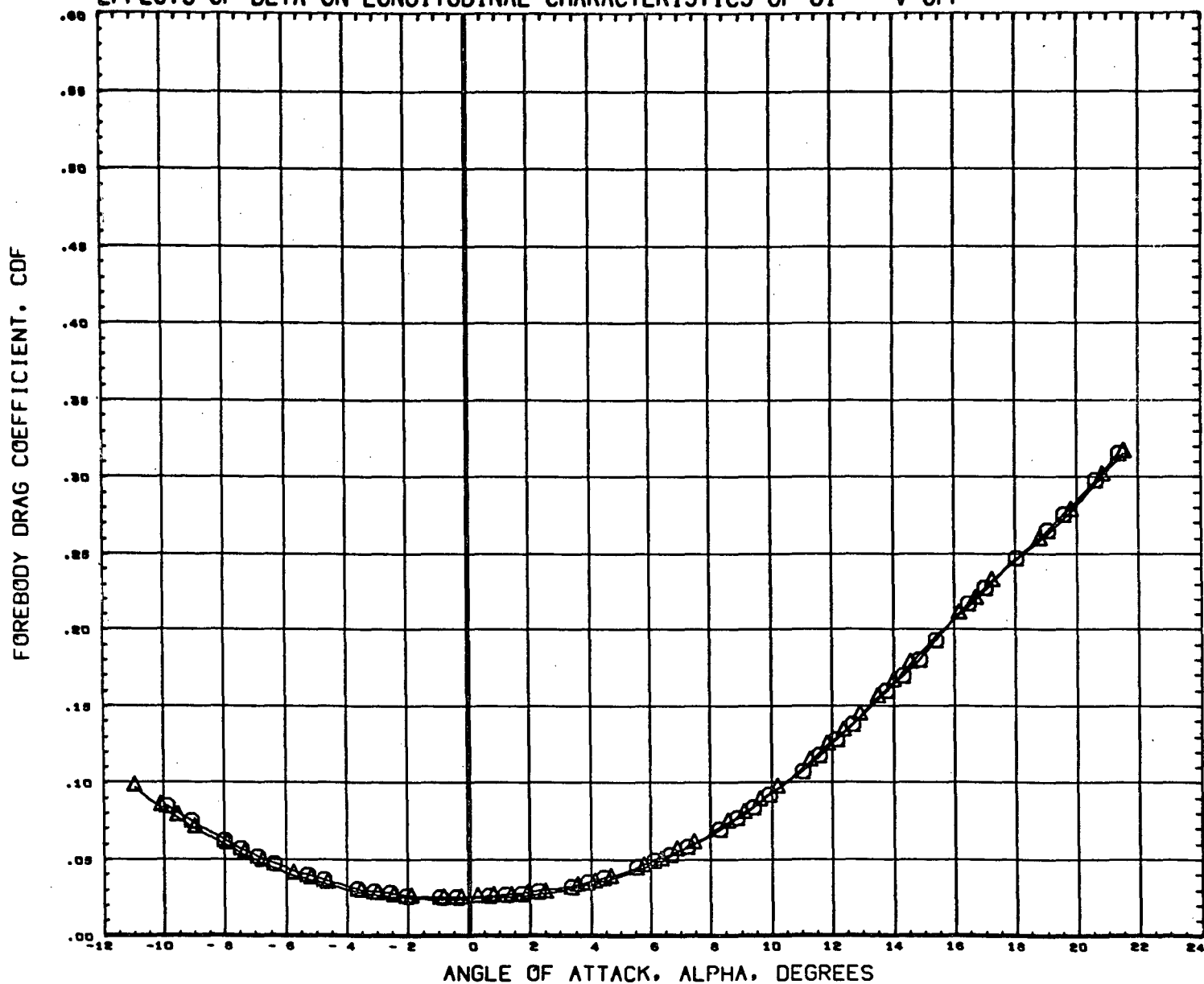
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREP	3155.3040	90.FT.
LREP	609.5004	IN.
BREP	862.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 150

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) MDAC S-222 ORBITER ALONE 01V OFF

BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

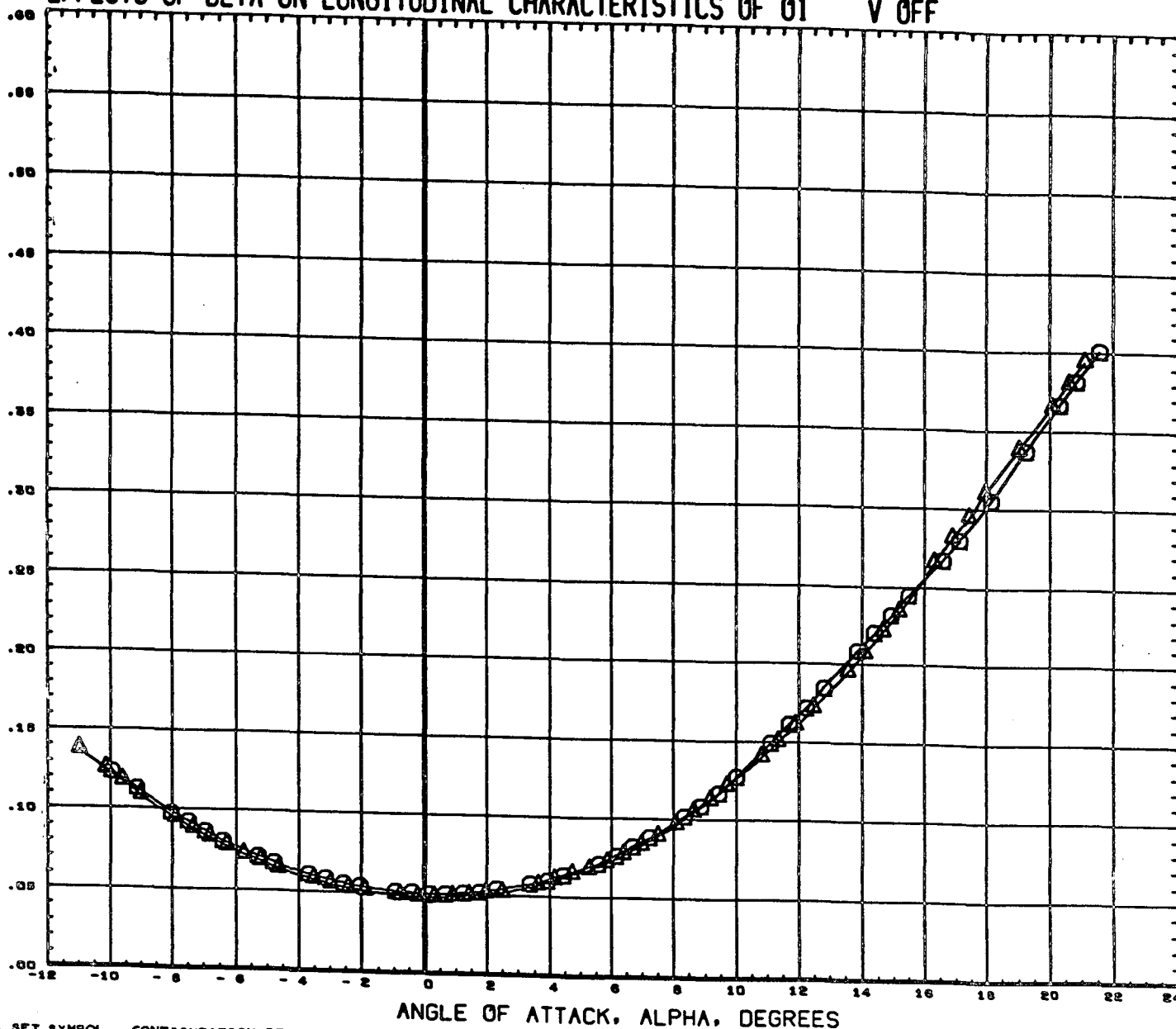
REFERENCE INFORMATION
 SREF 3155.3040 SQ. FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1069.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 151

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) MDAC S-222 ORBITER ALONE 01V OFF

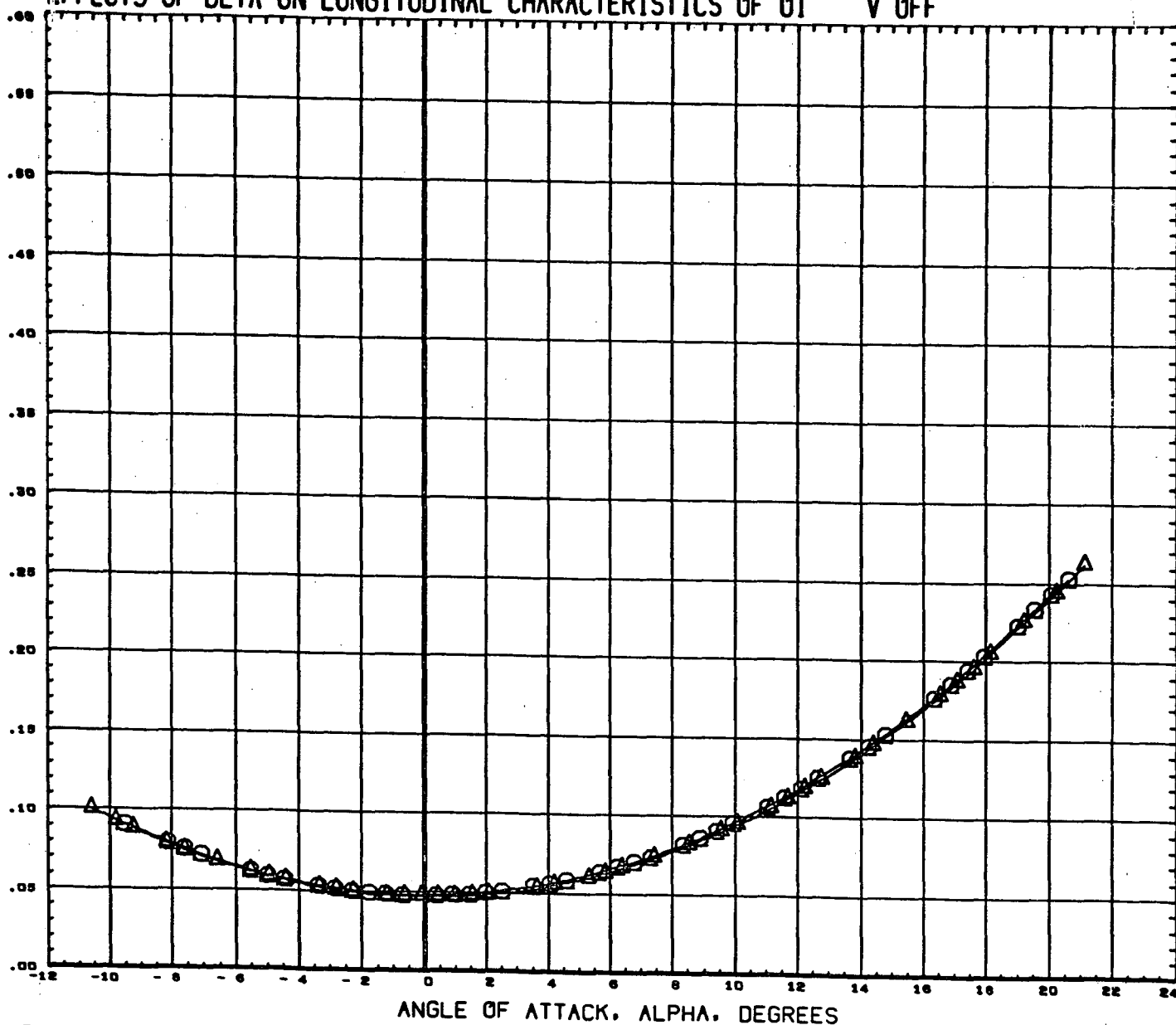
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 809.5004 IN.
 BREF 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 1.08

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) \bigcirc MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) \triangle MDAC S-222 ORBITER ALONE 01V OFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

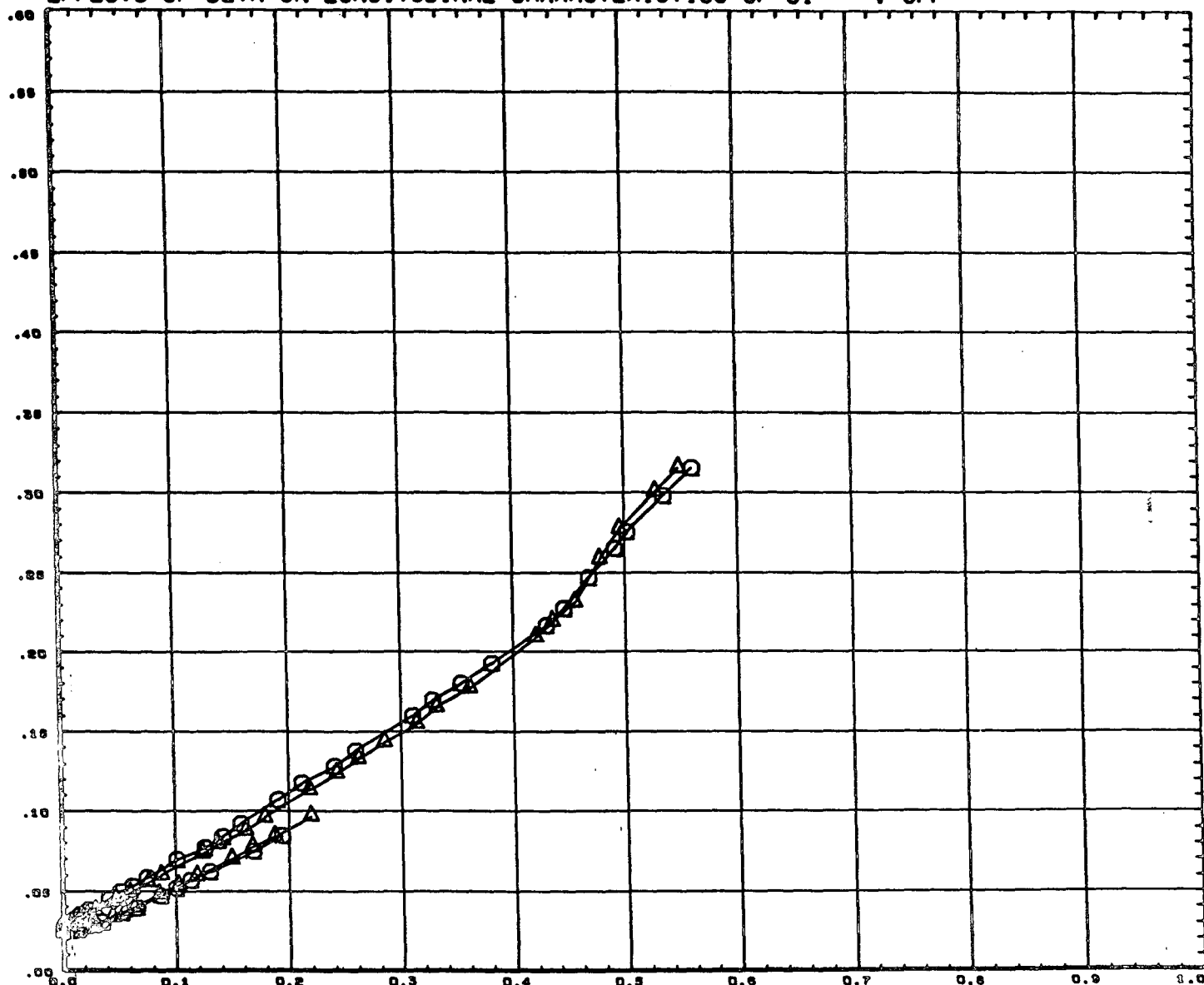
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 153

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1VOFF
(CD7708)	MDAC S-222 ORBITER ALONE O1VOFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
0.000	0.000	0.000

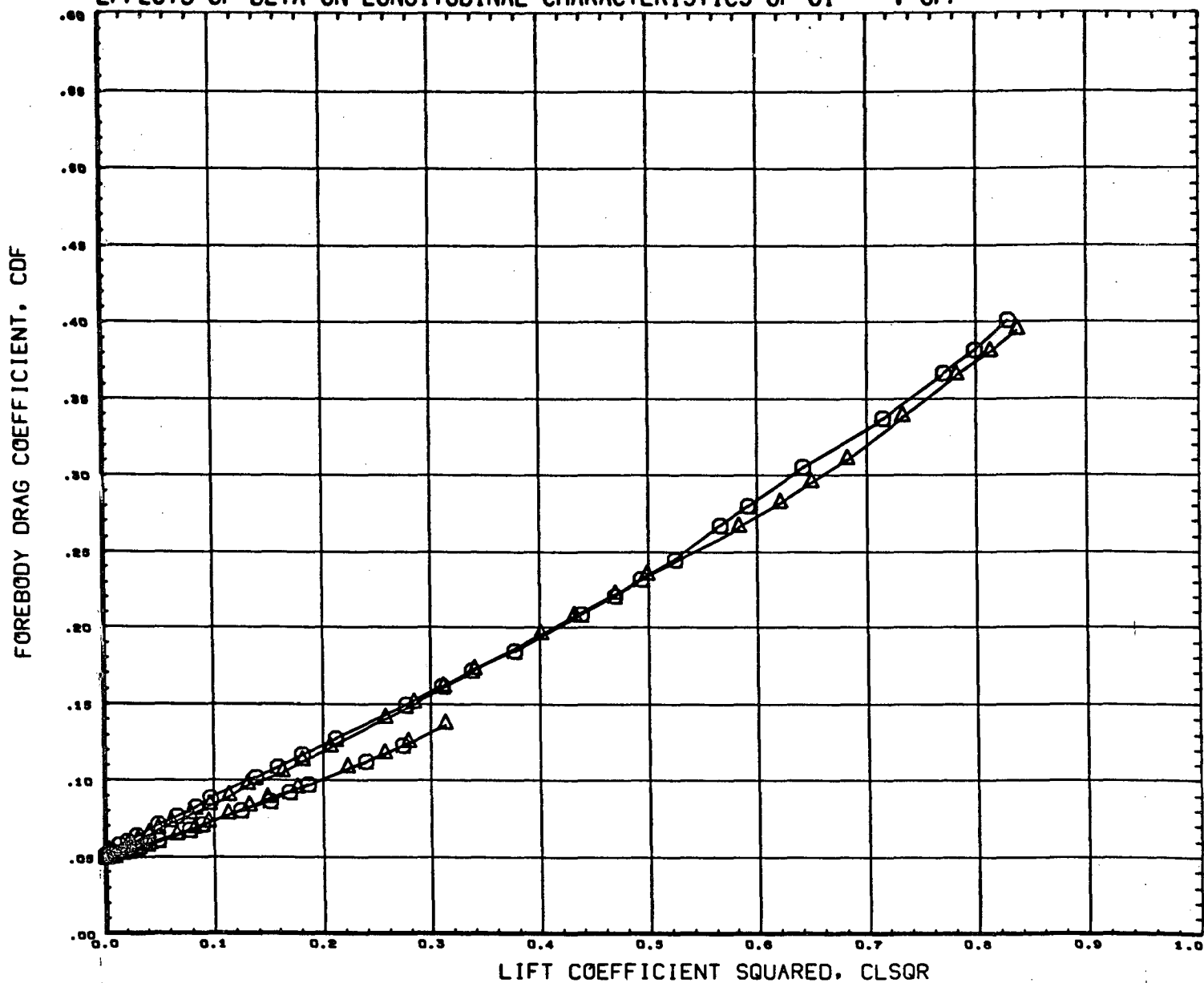
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH

.89

PAGE 154

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1VOFF
(CD7708)	MDAC S-222 ORBITER ALONE O1VOFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

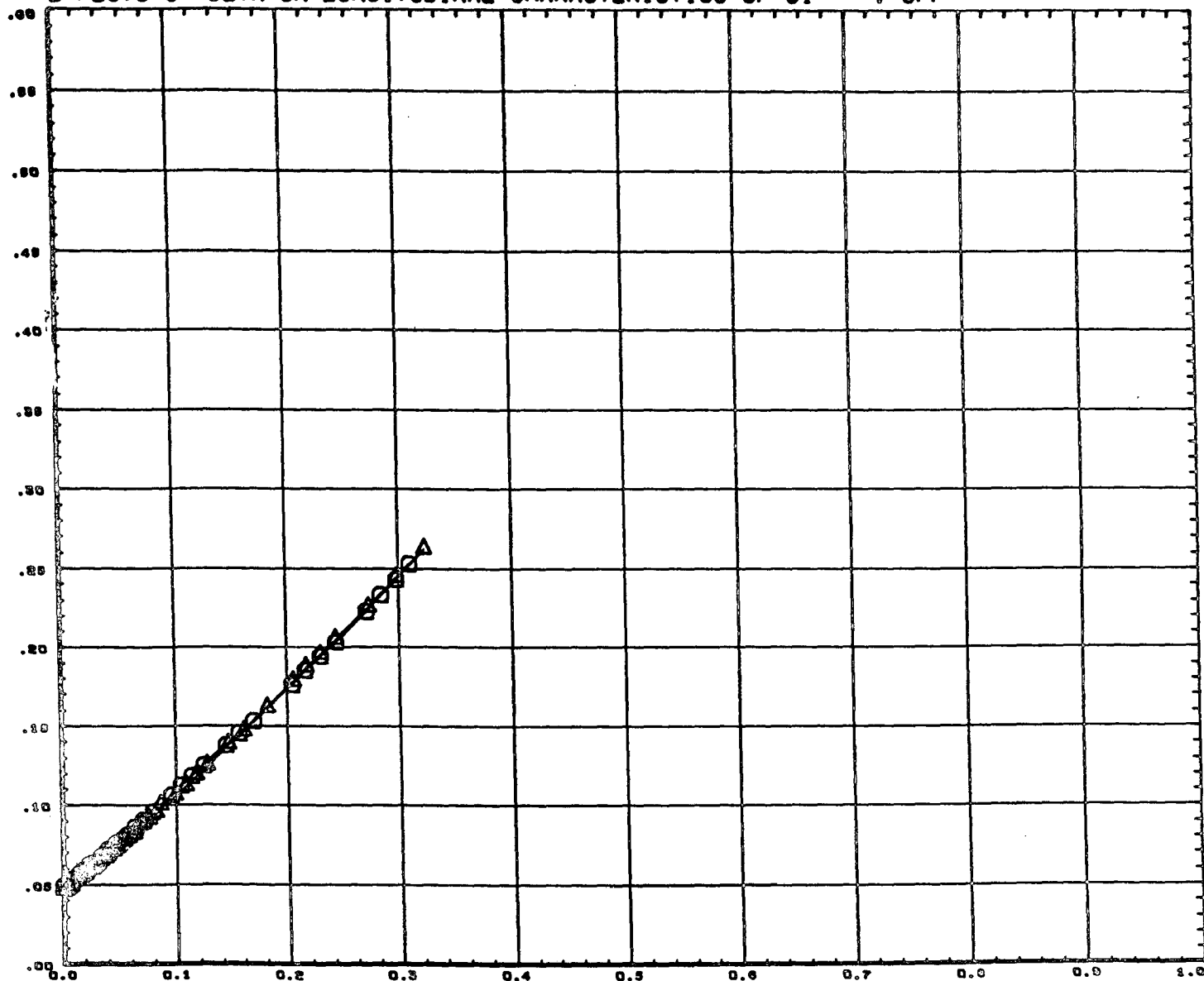
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 155

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE O1VOFF
(CD7708)	MDAC S-222 ORBITER ALONE O1VOFF

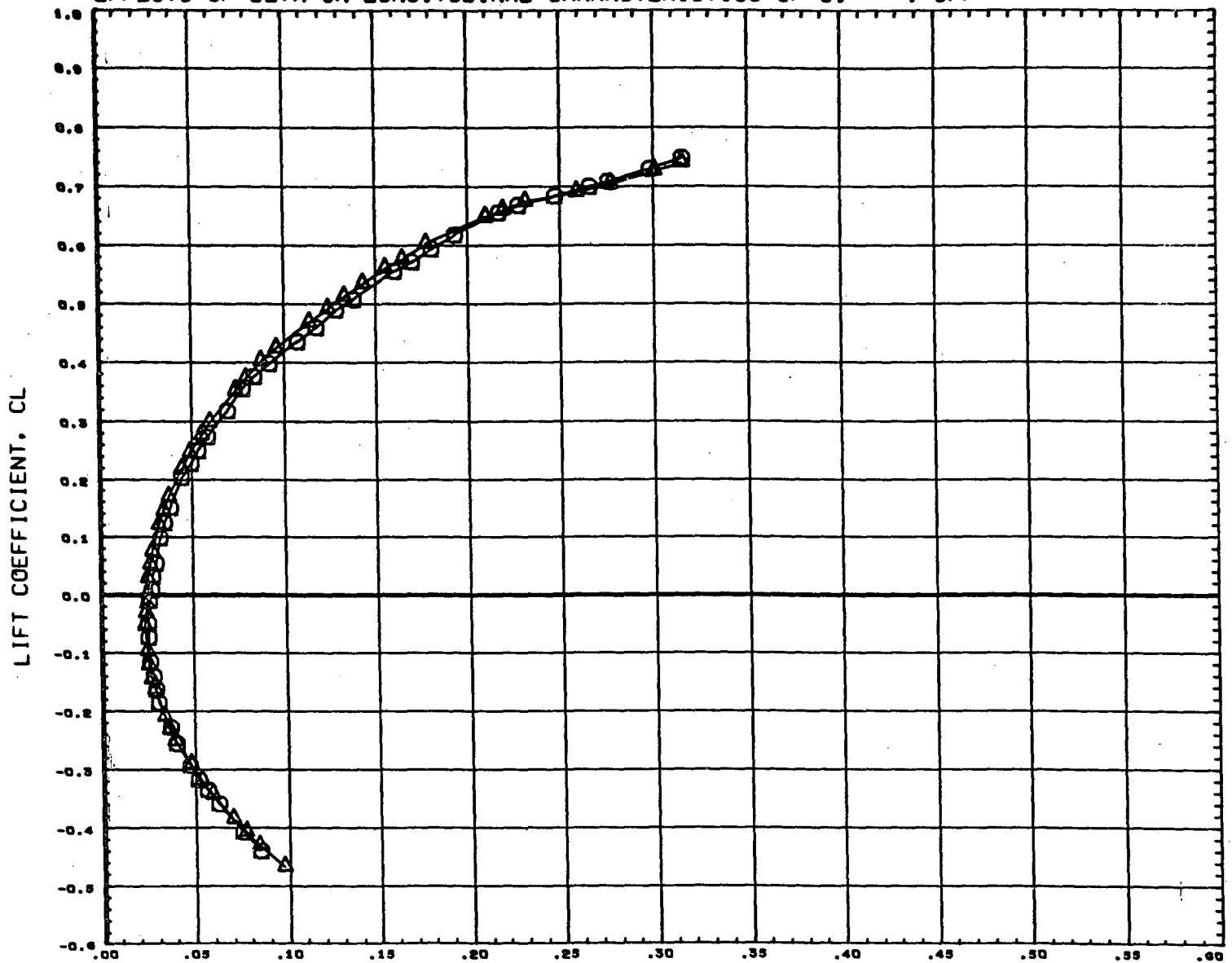
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3199.3040	SQ.FT.
LREF	009.9004	IN.
BREF	002.0004	IN.
XMRP	1000.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 156

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



FOREBODY DRAG COEFFICIENT, CDF

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE 01VOFF
 (CD7708) MDAC S-222 ORBITER ALONE 01VOFF

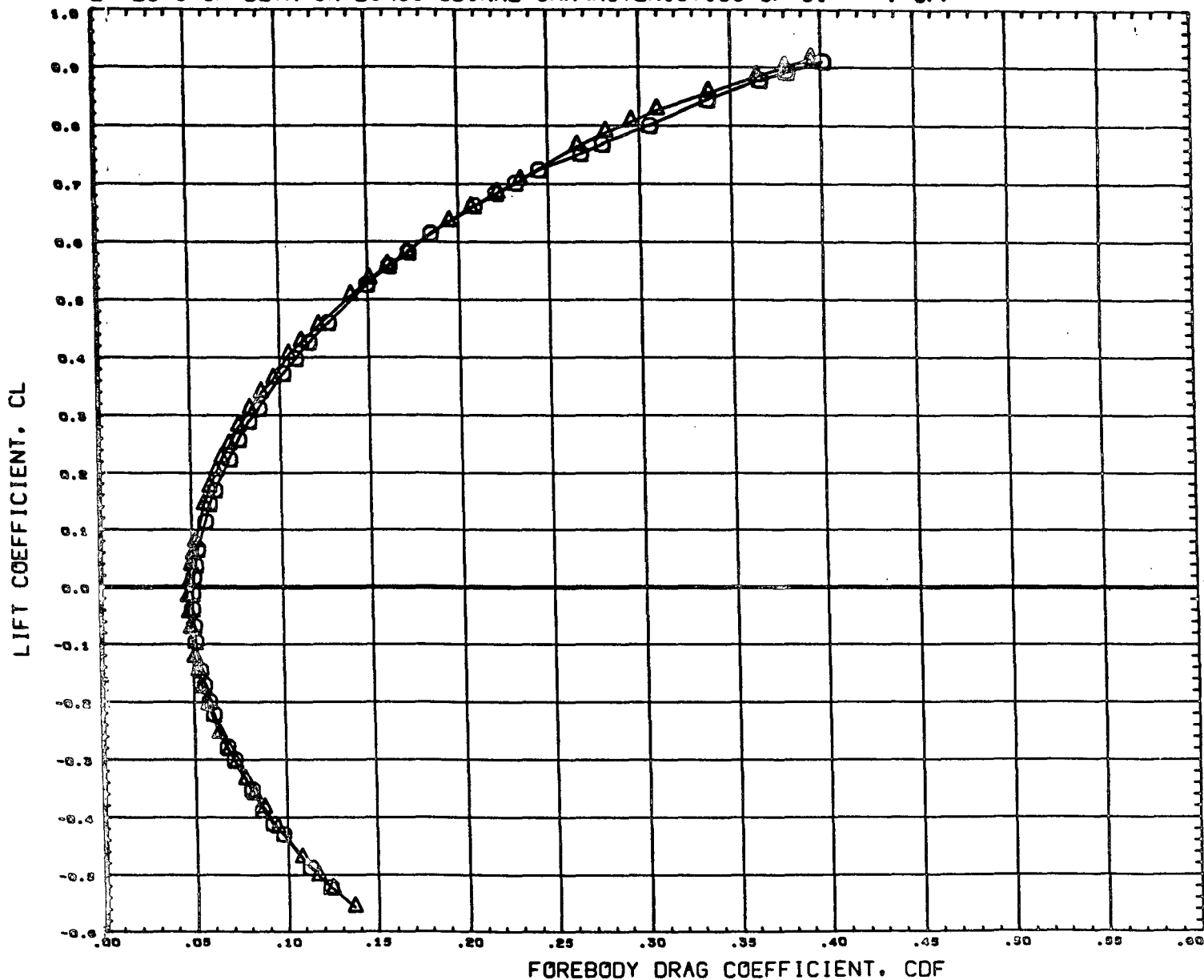
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 157

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE 01VOFF
(CD7708)	MDAC S-222 ORBITER ALONE 01VOFF

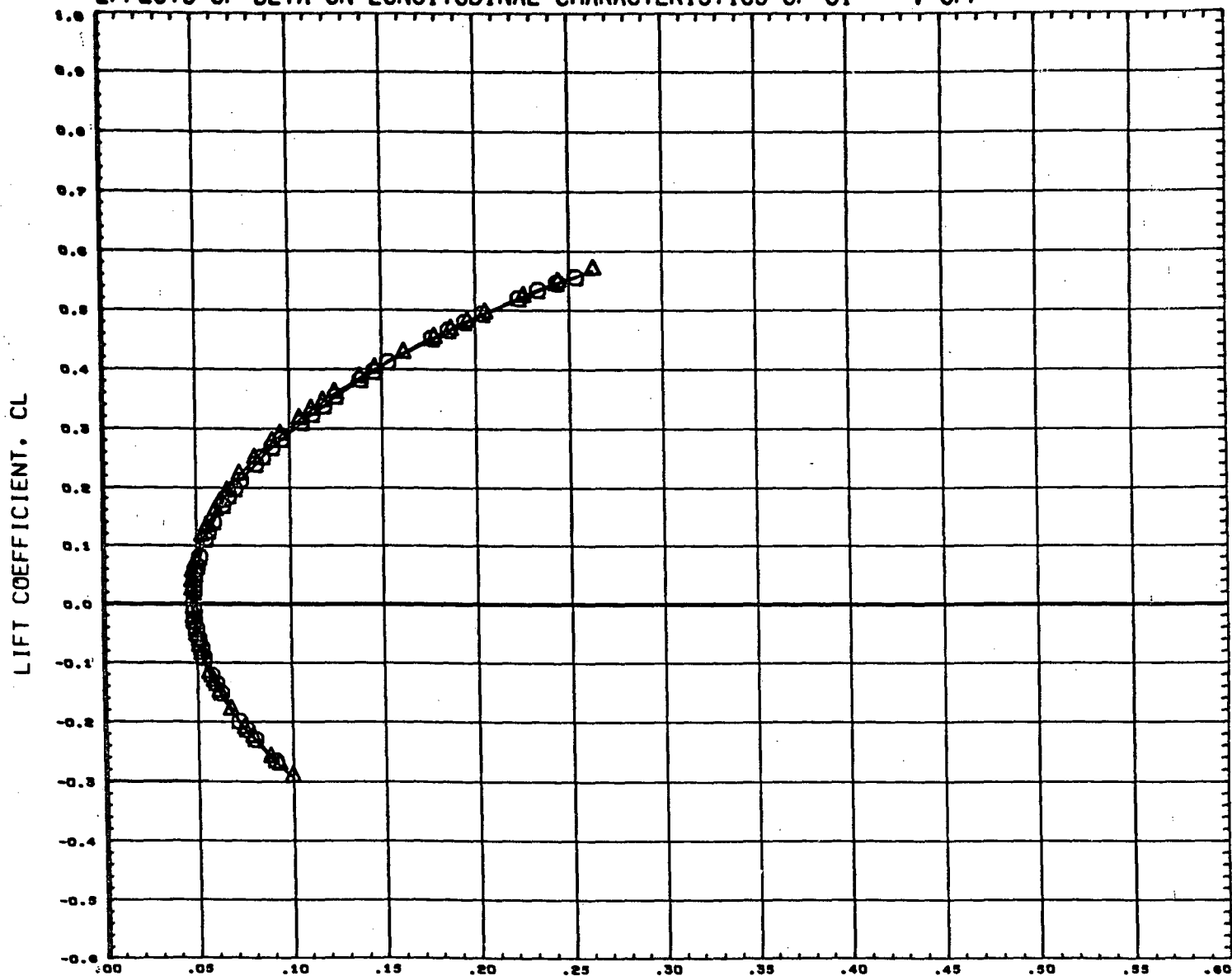
BETA	ELEVTR	AILRON
0.000	0.000	0.000
0.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3153.3040	SQ.FT.
LREF	809.5004	IN.
BREF	882.0004	IN.
XMRRP	1066.0040	IN.
YMRRP	0.0000	IN.
ZMRRP	404.0004	IN.
SCALE	0.0000	

MACH 1.08

PAGE 158

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) \square MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) Δ MDAC S-222 ORBITER ALONE 01V OFF

FOREBODY DRAG COEFFICIENT, CDF

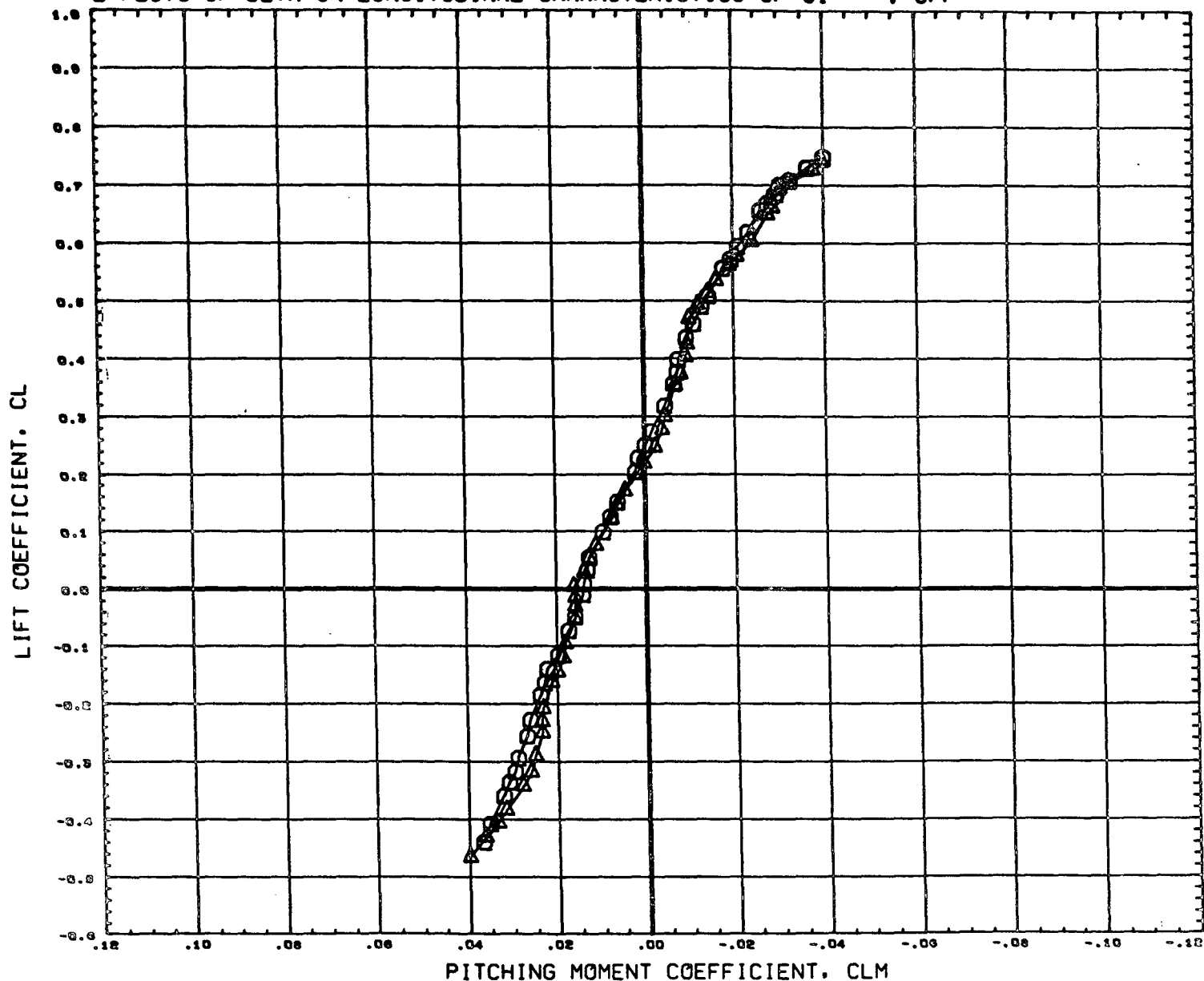
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ. FT.
 LREF 609.5004 IN.
 BREF 662.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 406.0004 IN.
 SCALE 0.0060

MACH 2.20

PAGE 159

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7707) MDAC S-222 ORBITER ALONE 01V OFF
 (CD7708) MDAC S-222 ORBITER ALONE 01V OFF

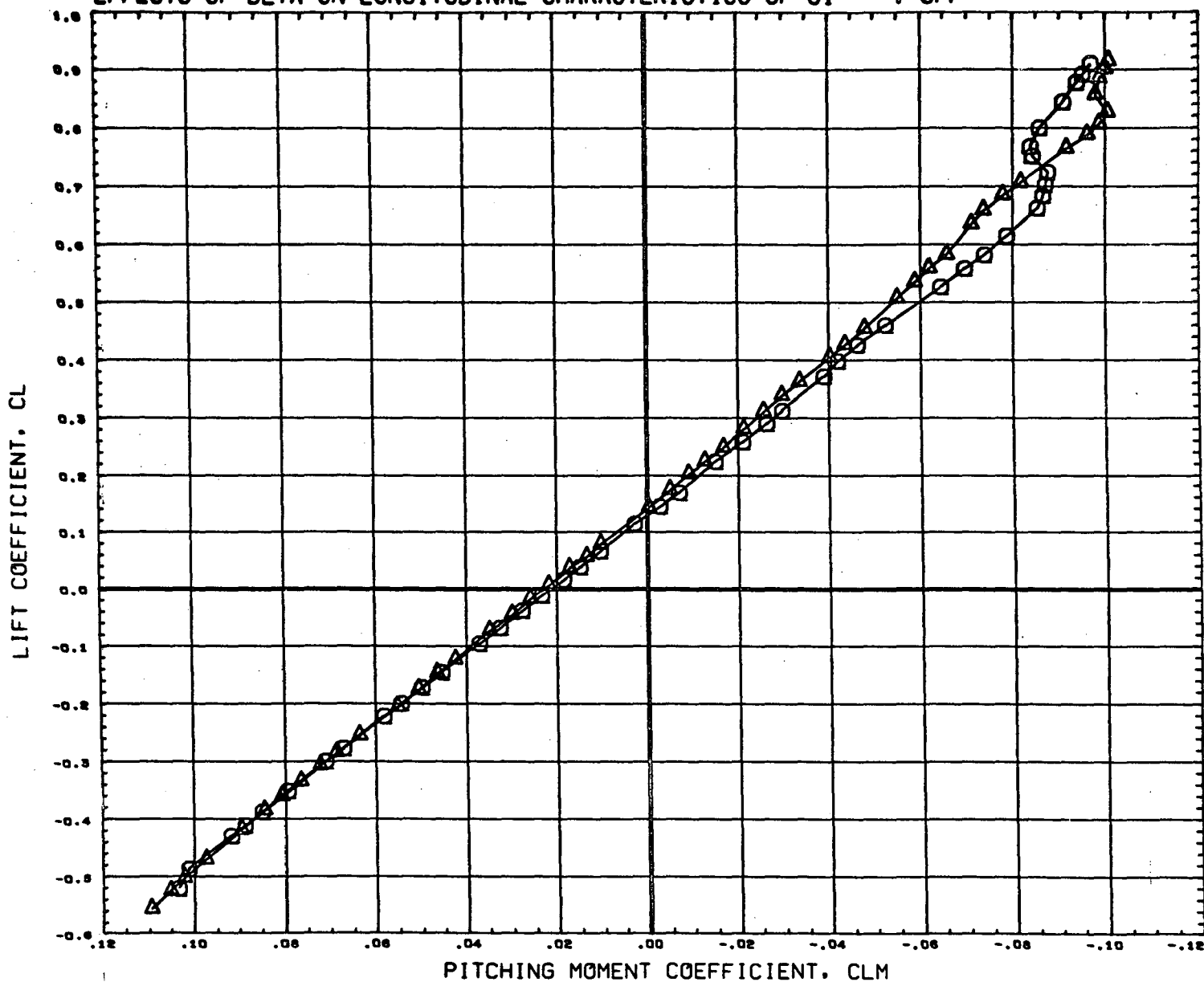
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ. FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 160

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7707)	MDAC S-222 ORBITER ALONE 01V OFF
(CD7708)	MDAC S-222 ORBITER ALONE 01V OFF

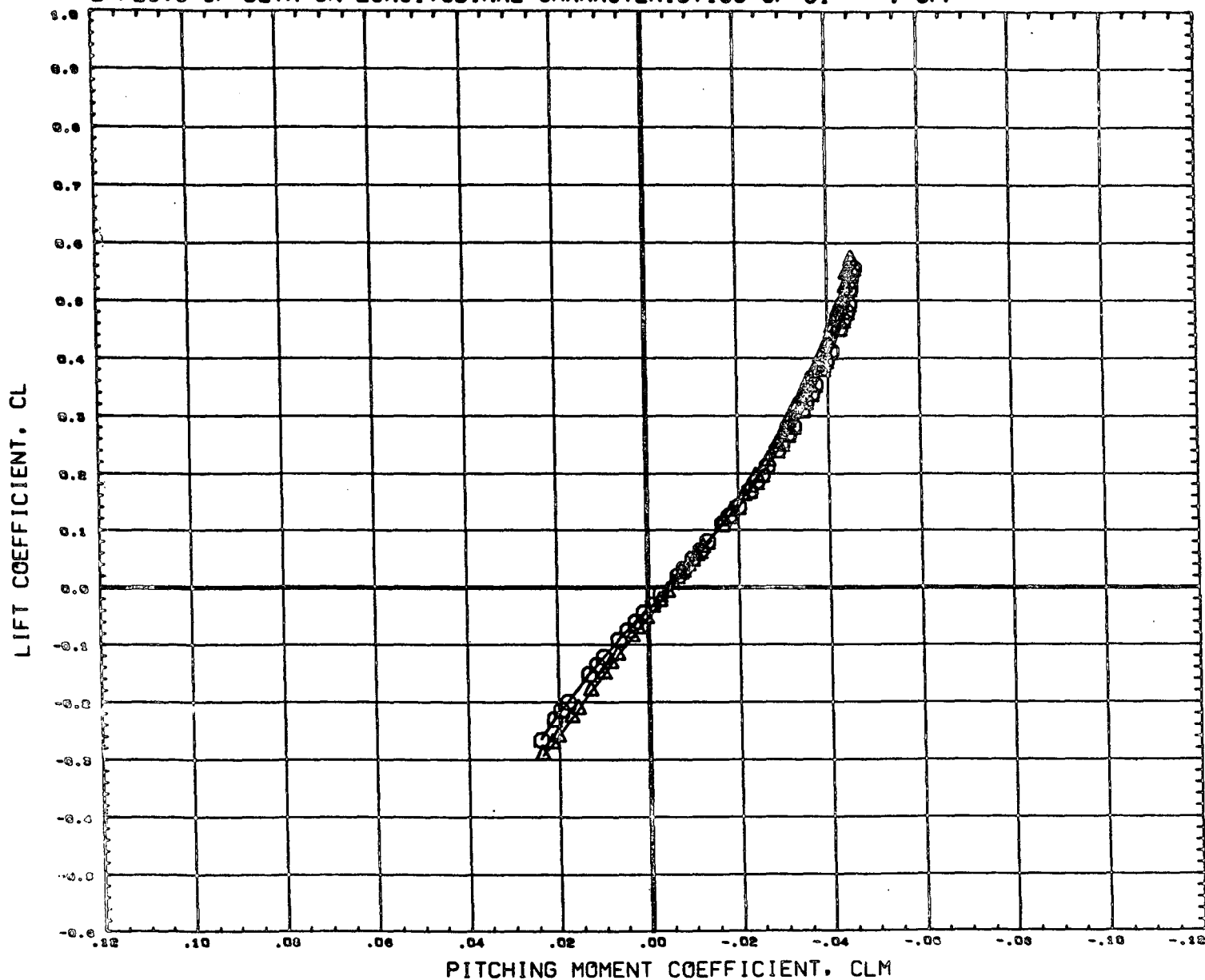
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	1069.0040 IN.
YMRP	0.0000 IN.
ZMRP	404.0004 IN.
SCALE	0.0060

MACH 1.08

PAGE 161

EFFECTS OF BETA ON LONGITUDINAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CDP707)	MDAC S-222 ORBITER ALONE 01VOFF
(CDP708)	MDAC S-222 ORBITER ALONE 01VOFF

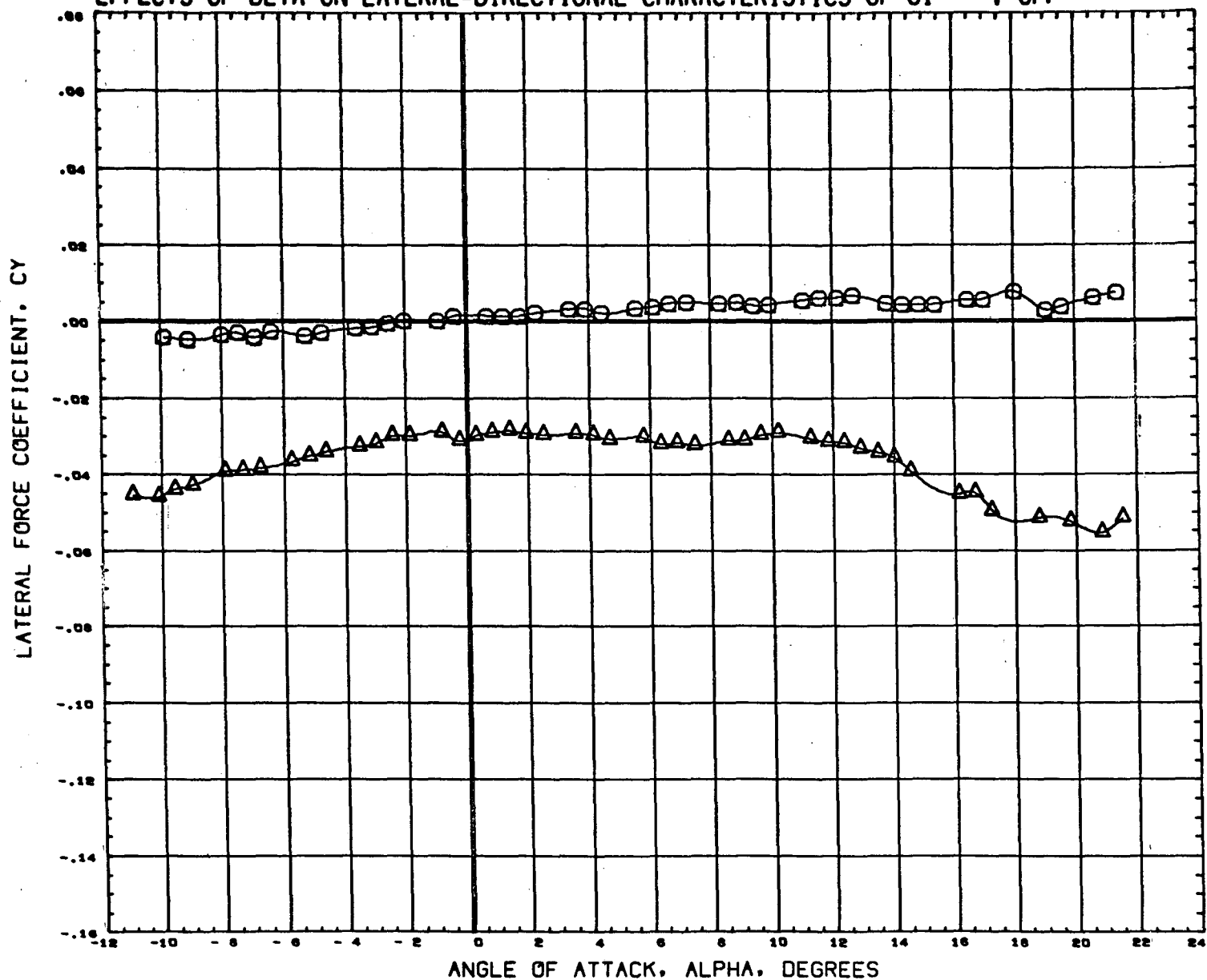
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3199.3040	SQ.FT.
LREF	009.9004	IN.
BREF	002.0004	IN.
XMRP	1060.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 162

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7707) \bigcirc MDAC S-222 ORBITER ALONE 01VOFF
 (RD7708) \triangle MDAC S-222 ORBITER ALONE 01VOFF

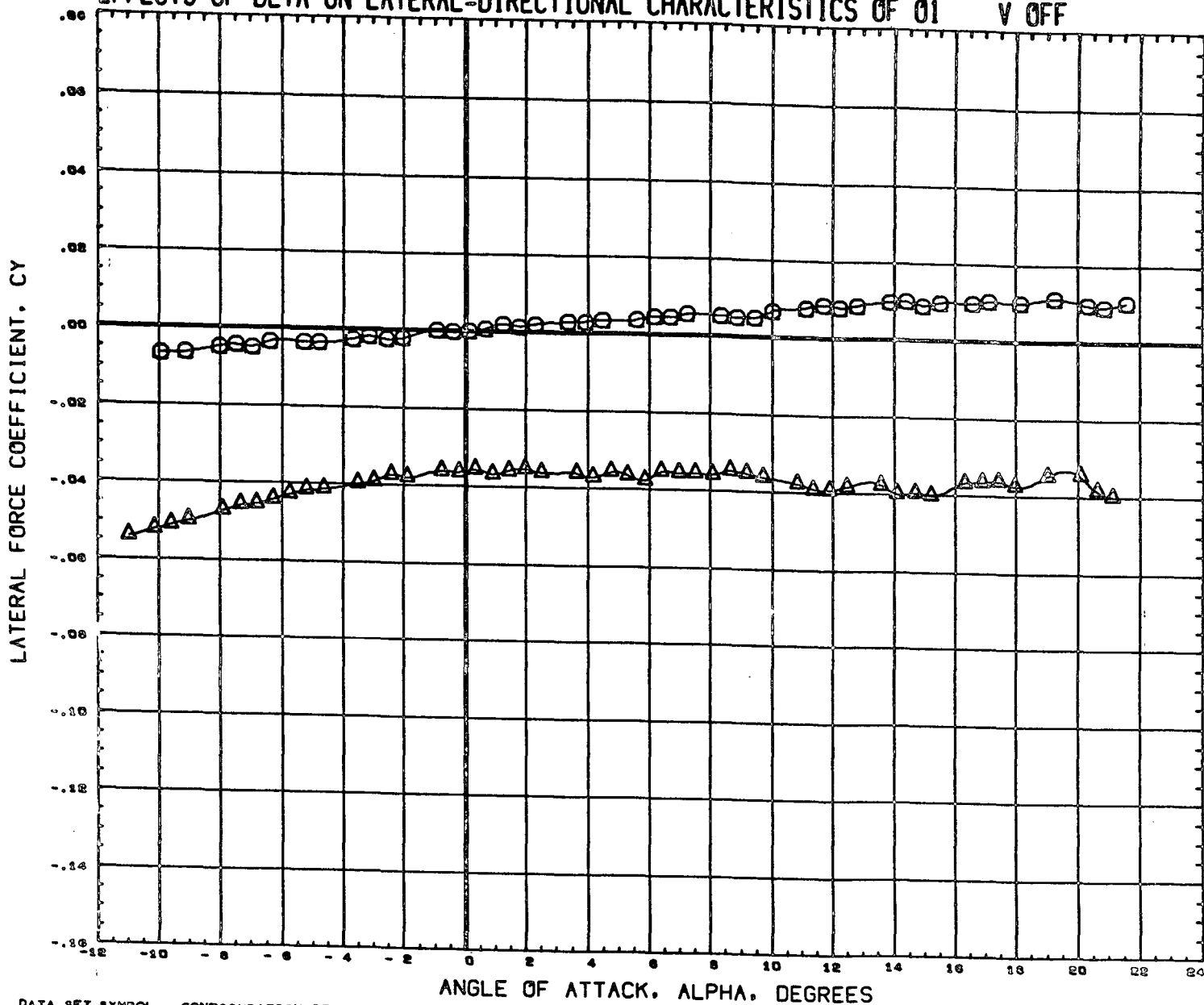
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH .89

PAGE 163

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF



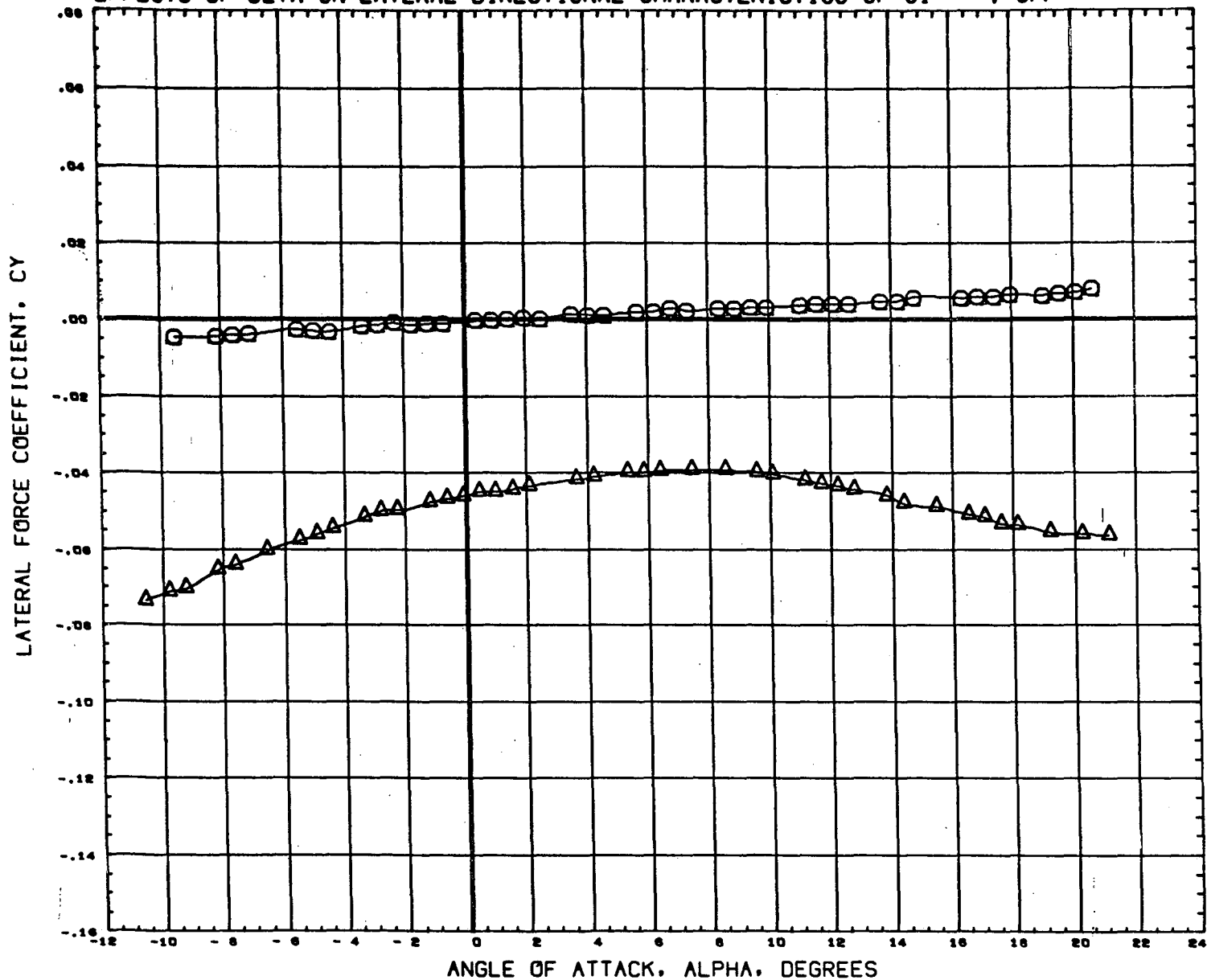
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7707) MDAC S-222 ORBITER ALONE 01VOFF
 (RD7708) MDAC S-222 ORBITER ALONE 01VOFF

BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3199.3040 SQ.FT.
 LREF 609.5004 IN.
 GREF 882.0004 IN.
 XMRP 1008.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0000

MACH 1.08

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7707) ○ MDAC S-222 ORBITER ALONE O1VOFF
(RD7708) Δ MDAC S-222 ORBITER ALONE O1VOFF

BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION

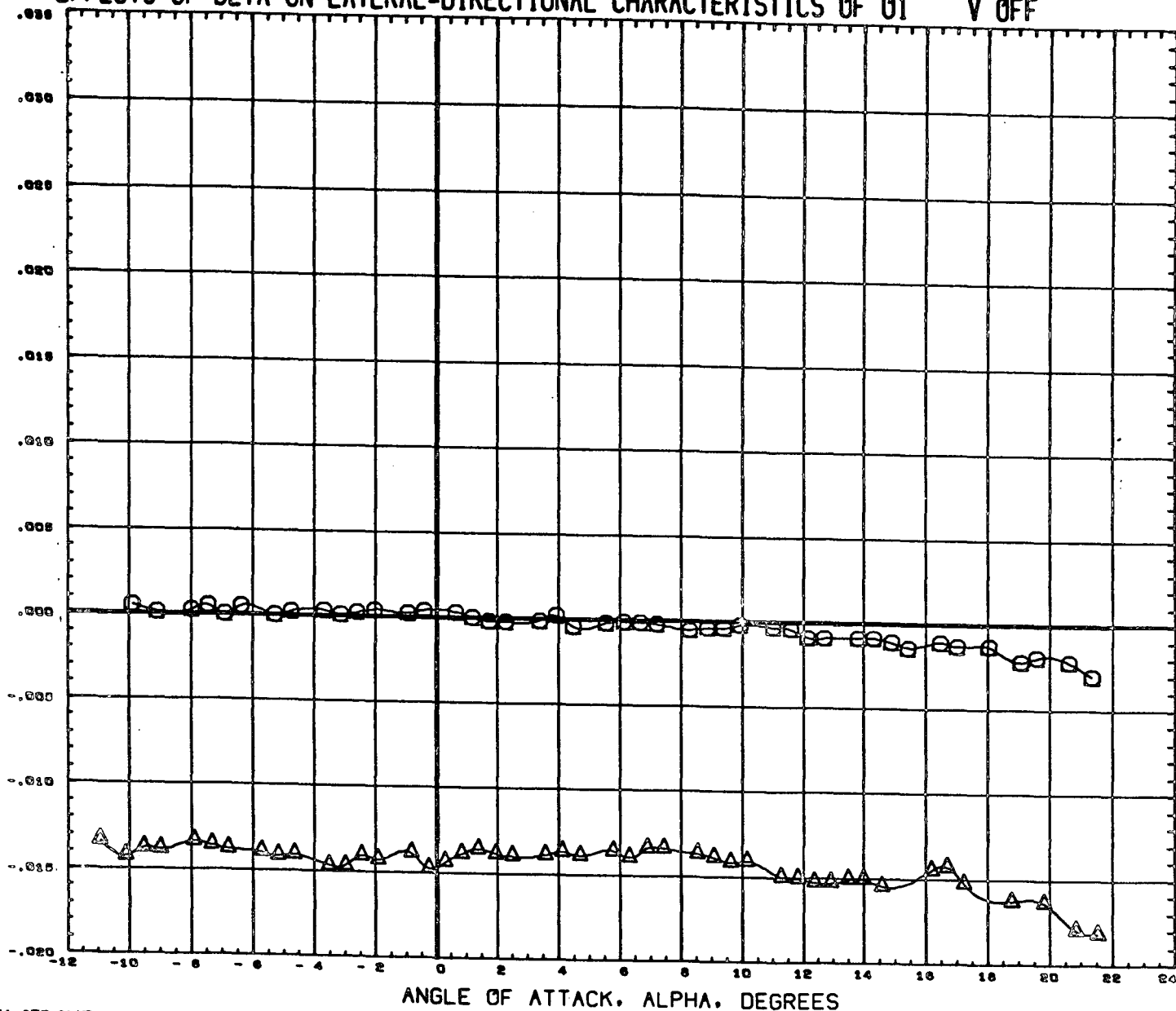
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	1068.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 165

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7707) MDAC S-222 ORBITER ALONE 01V OFF
 (RD7708) MDAC S-222 ORBITER ALONE 01V OFF

BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREP 3155.3040 SQ. FT.
 LREP 609.5004 IN.
 GREP 882.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

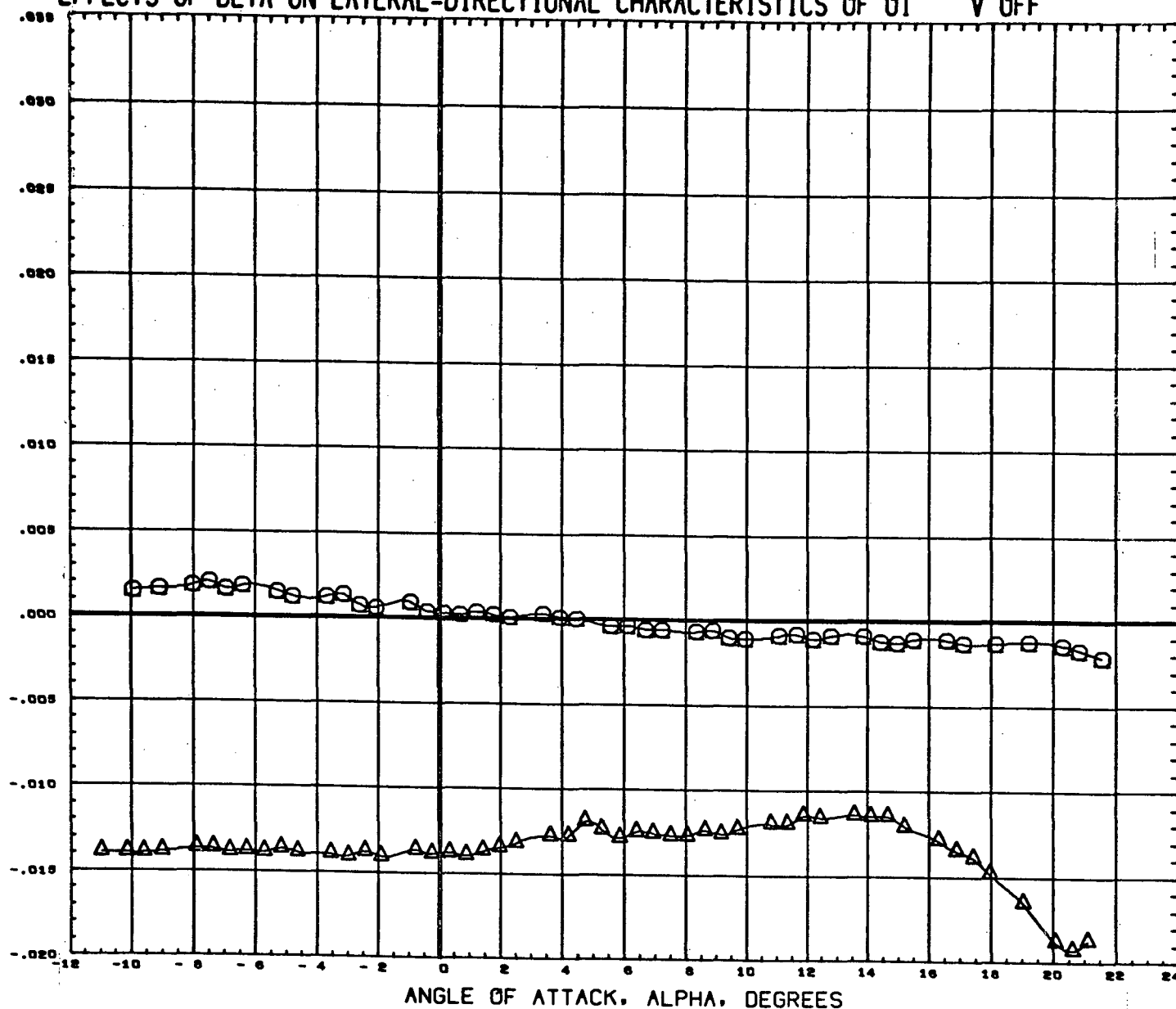
MACH

.89

PAGE 166

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7707) MDAC S-222 ORBITER ALONE 01V OFF
(RD7708) MDAC S-222 ORBITER ALONE 01V OFF

BETA ELEVTR AILRON
0.000 0.000 0.000
6.000 0.000 0.000

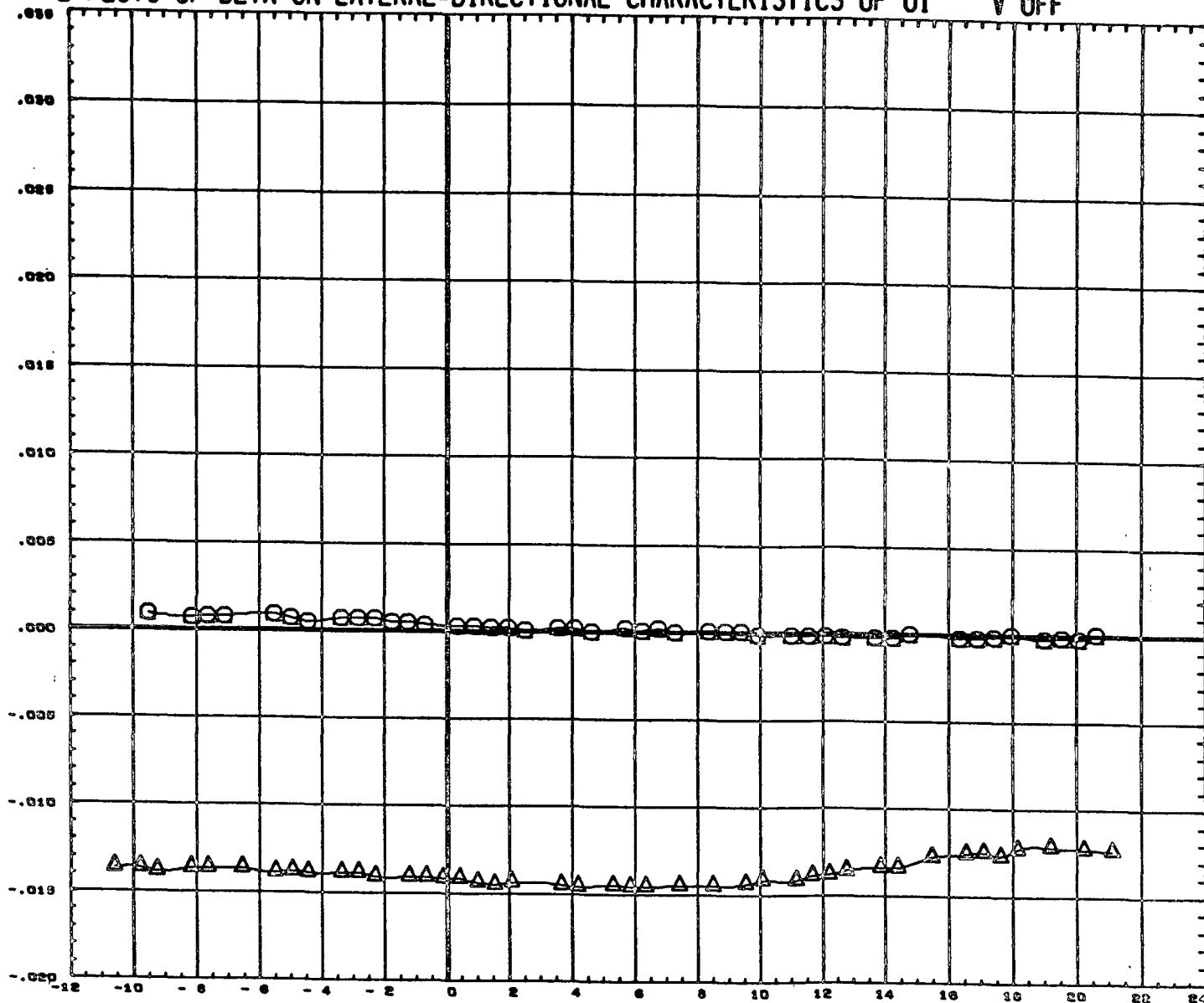
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 167

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7707) MDAC S-222 ORBITER ALONE 01VOFF
(RD7708) MDAC S-222 ORBITER ALONE 01VOFF

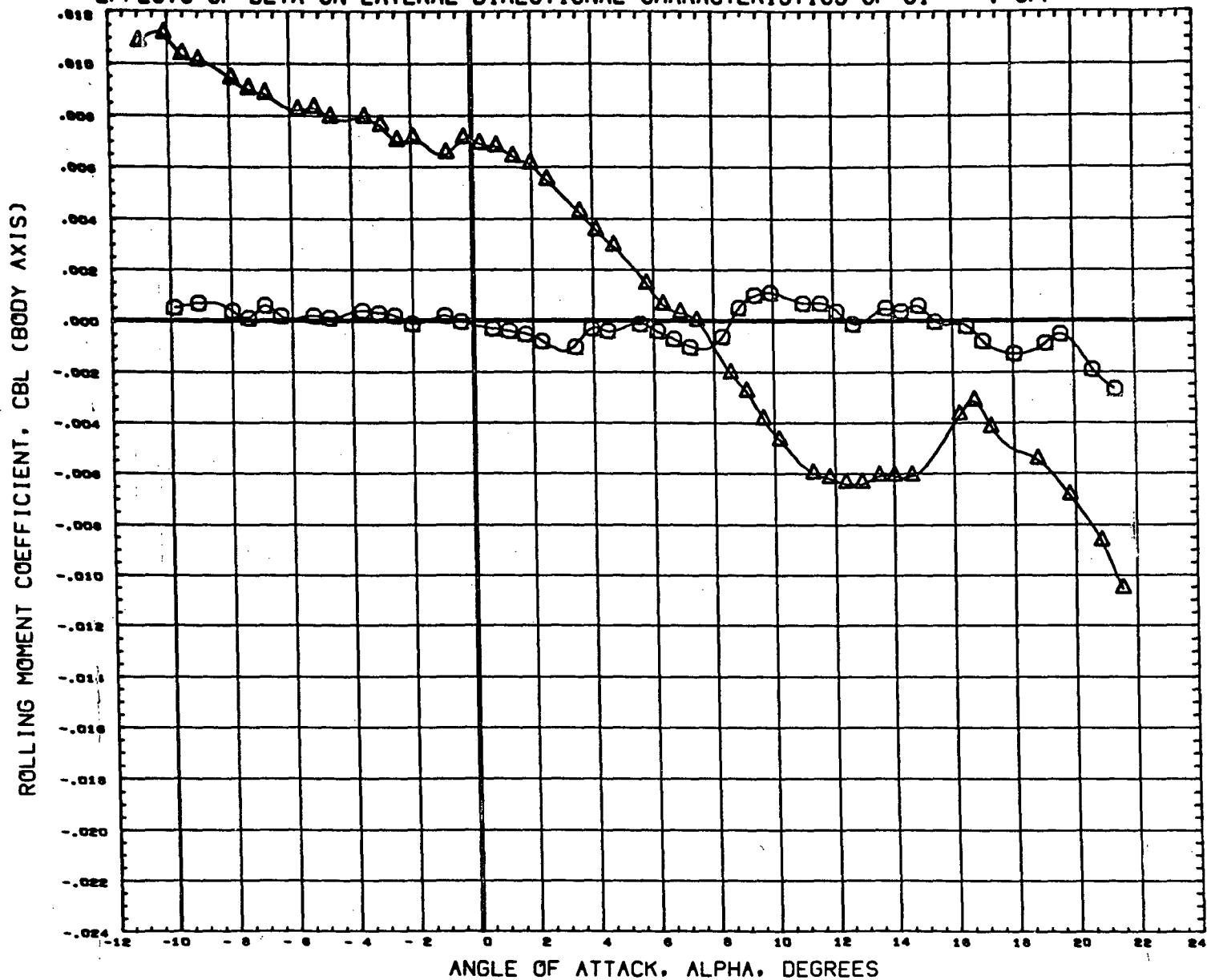
BETA ELEVTR AILRON
0.000 0.000 0.000
6.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
OREF 692.0004 IN.
XMRP 1000.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 168

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7707) MDAC S-222 ORBITER ALONE O1V OFF
(RD7708) MDAC S-222 ORBITER ALONE O1V OFF

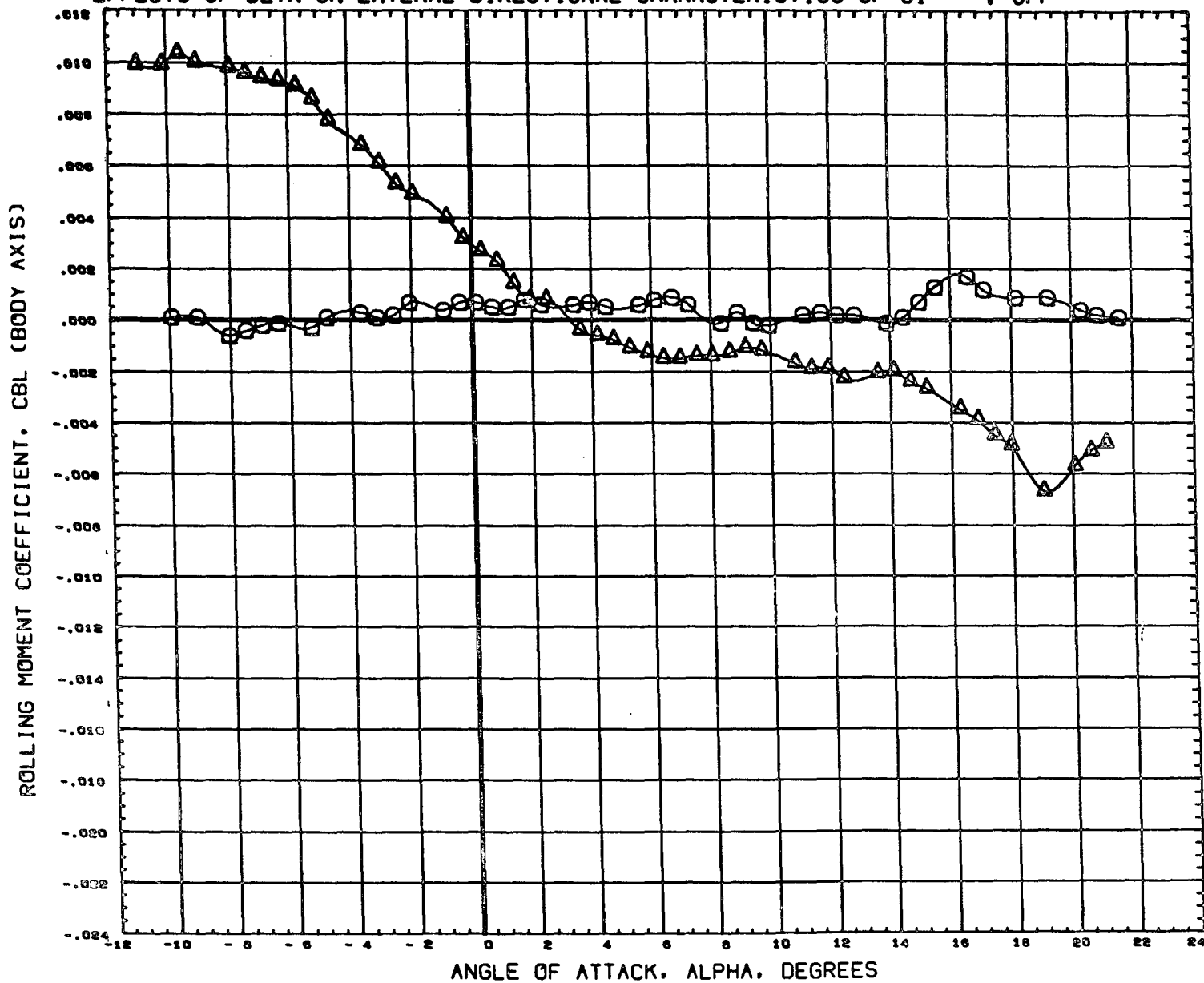
BETA ELEVTR AILRON
0.000 0.000 0.000
6.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ. FT.
LREF 609.3004 IN.
BREF 882.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 169

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (R07707) Q MDAC S-222 ORBITER ALONE O1VOFF
 (R07708) A MDAC S-222 ORBITER ALONE O1VOFF

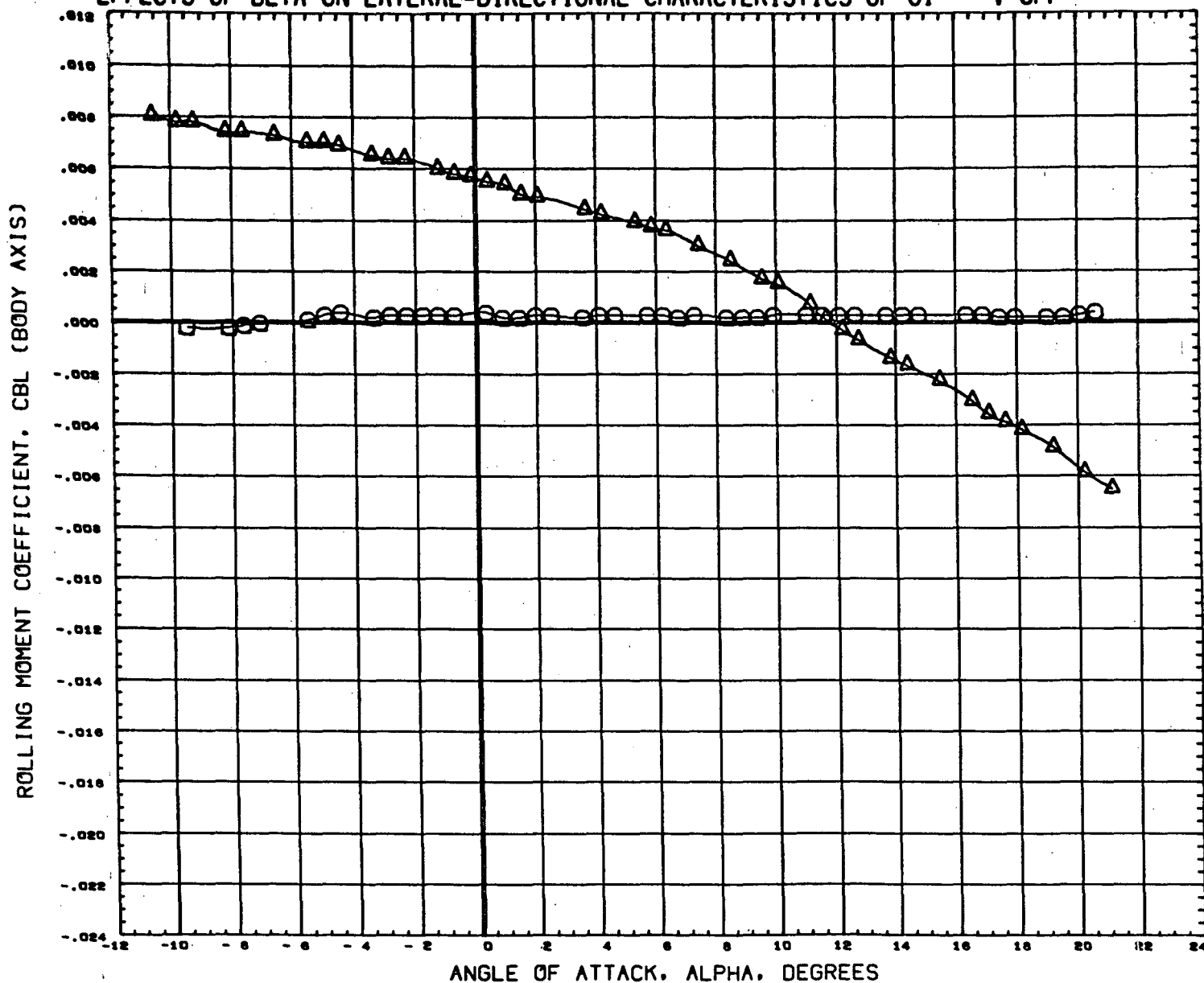
BETA ELEVTR AILRON
 0.000 0.000 0.000
 6.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3199.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 602.0004 IN.
 XMRP 1068.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH 1.08

PAGE 170

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01 V OFF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7707) MDAC S-222 ORBITER ALONE O1V OFF
(RD7708) MDAC S-222 ORBITER ALONE O1V OFF

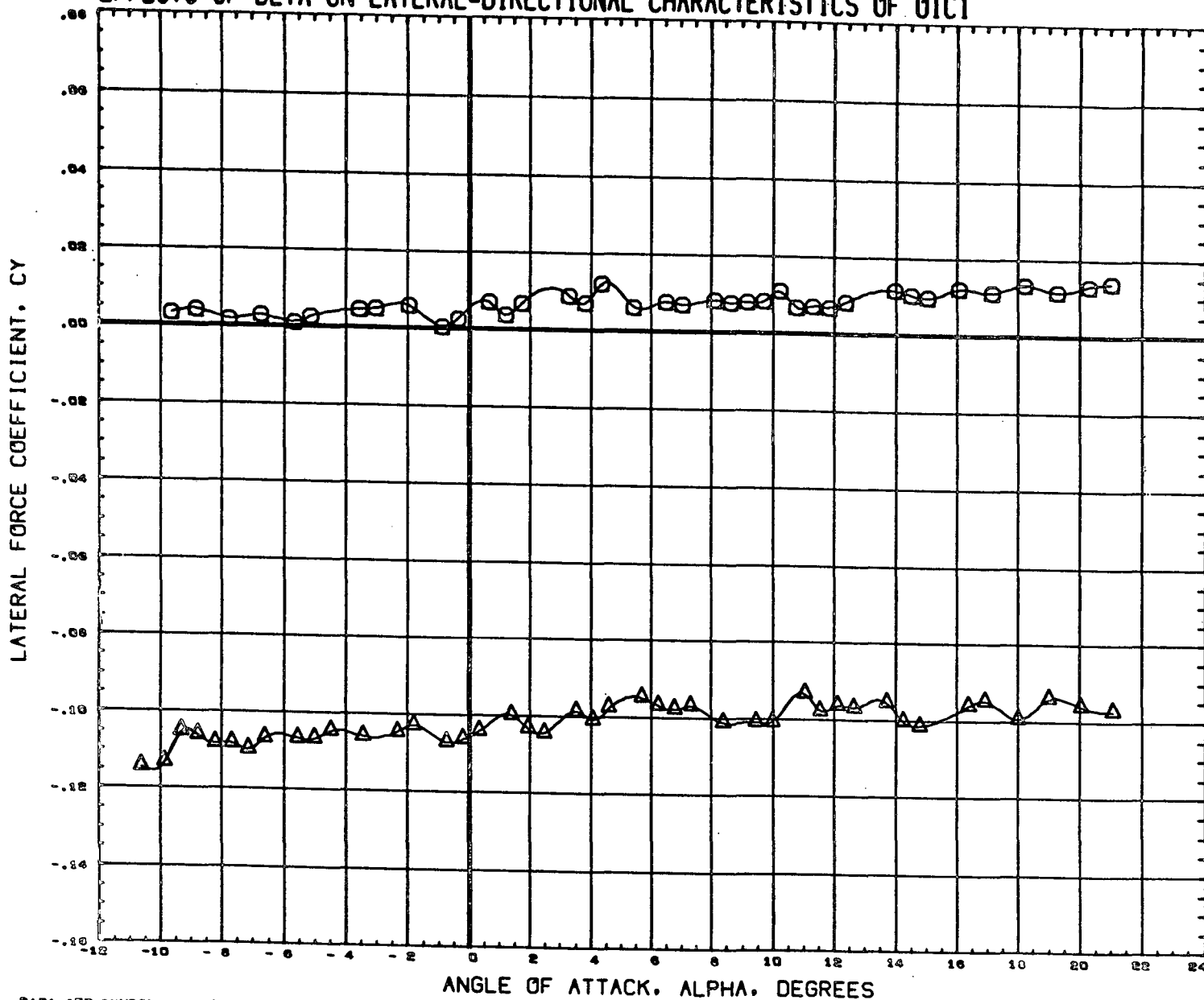
BETA	ELEVTR	AILRON
0.000	0.000	0.000
6.000	0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	1066.0040	IN.
YMRP	0.0000	IN.
ZMRP	404.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 171

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) MDAC S-222 ORBITER ALONE O1C1
(RD7710) MDAC S-222 ORBITER ALONE O1C1

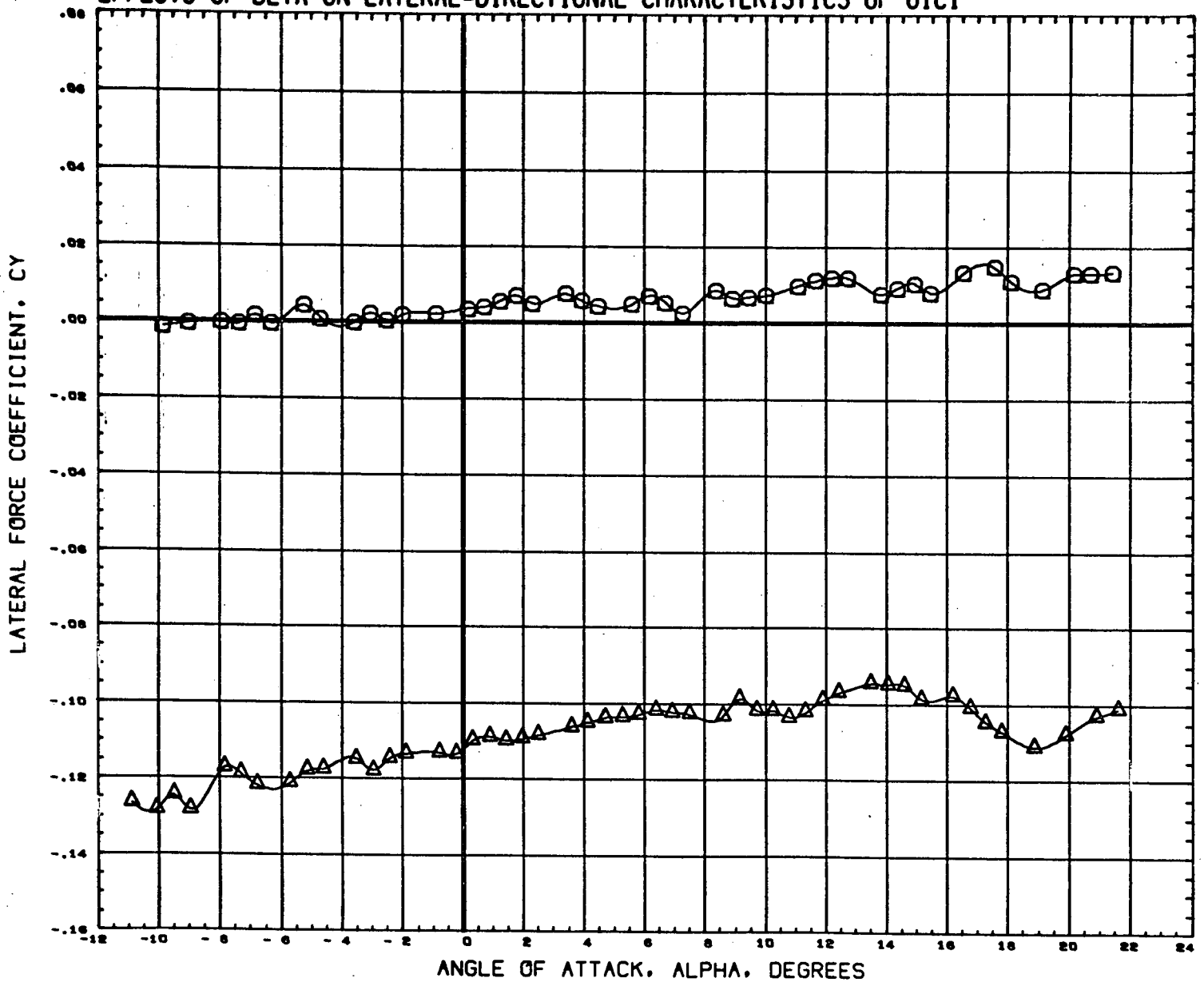
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 602.0004 IN.
XMRP 1066.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH

.56

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1



DATA SET SYMBOL: CONFIGURATION DESCRIPTION
(RD7709) MDAC S-222 ORBITER ALONE 01C1
(RD7710) MDAC S-222 ORBITER ALONE 01C1

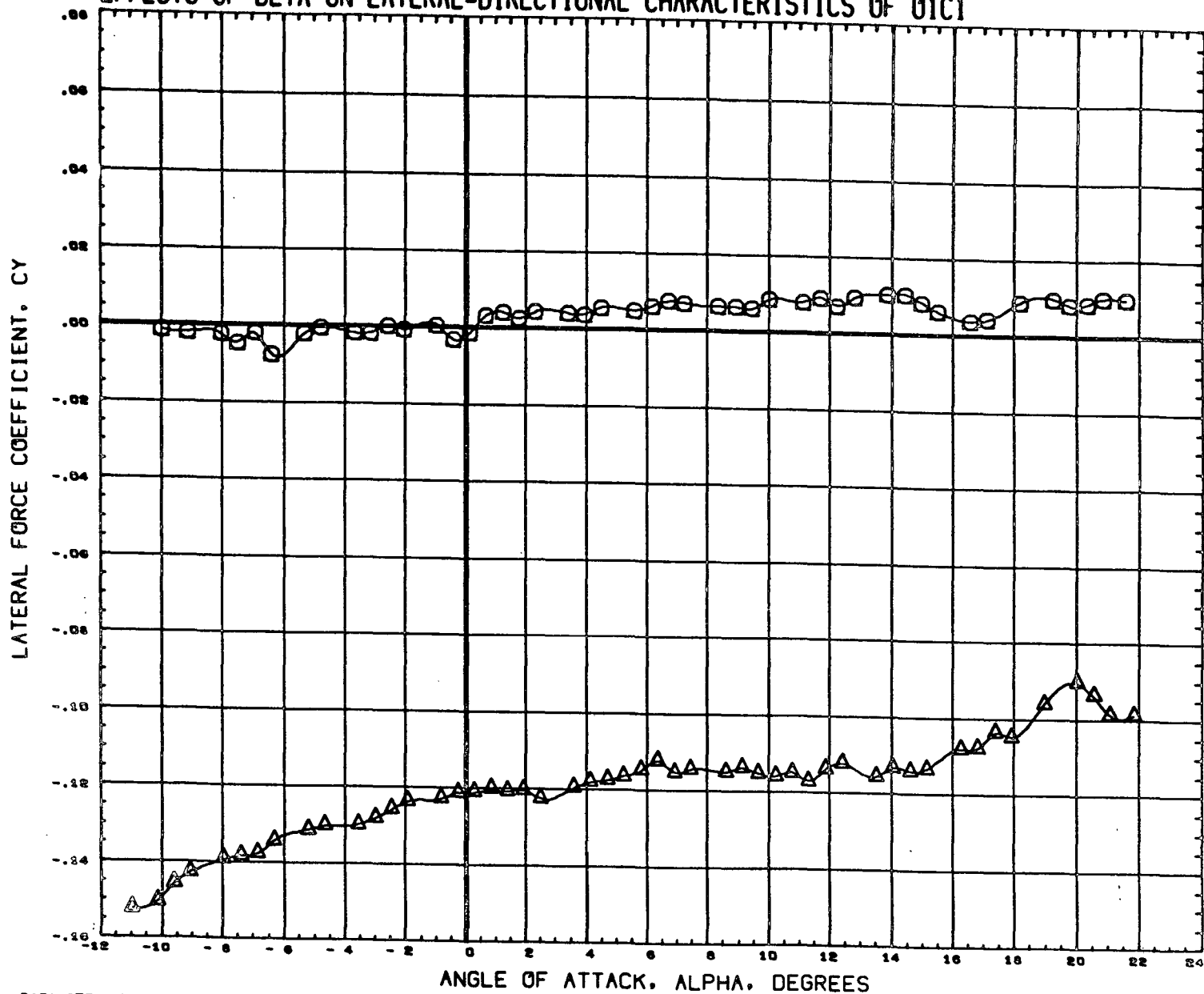
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 1060.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .89

PAGE 173

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1



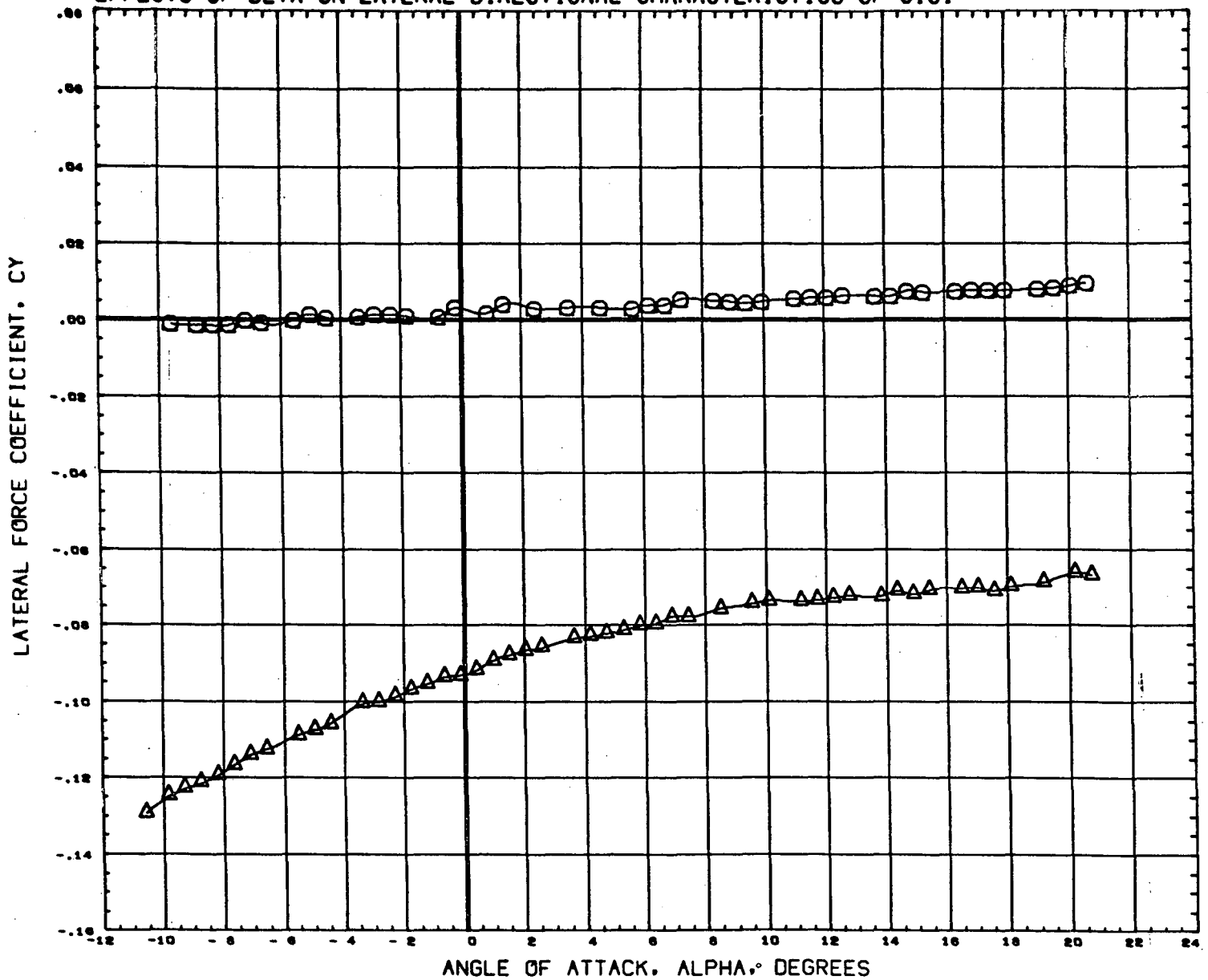
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) MDAC S-222 ORBITER ALONE O1C1
(RD7710) MDAC S-222 ORBITER ALONE O1C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3159.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF 609.9004 IN.
				BREF 662.0004 IN.
				XMRP 1066.0040 IN.
				YMRP 0.0000 IN.
				ZMRP 404.0004 IN.
				SCALE 0.0060

MACH 1.08

PAGE 174

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1

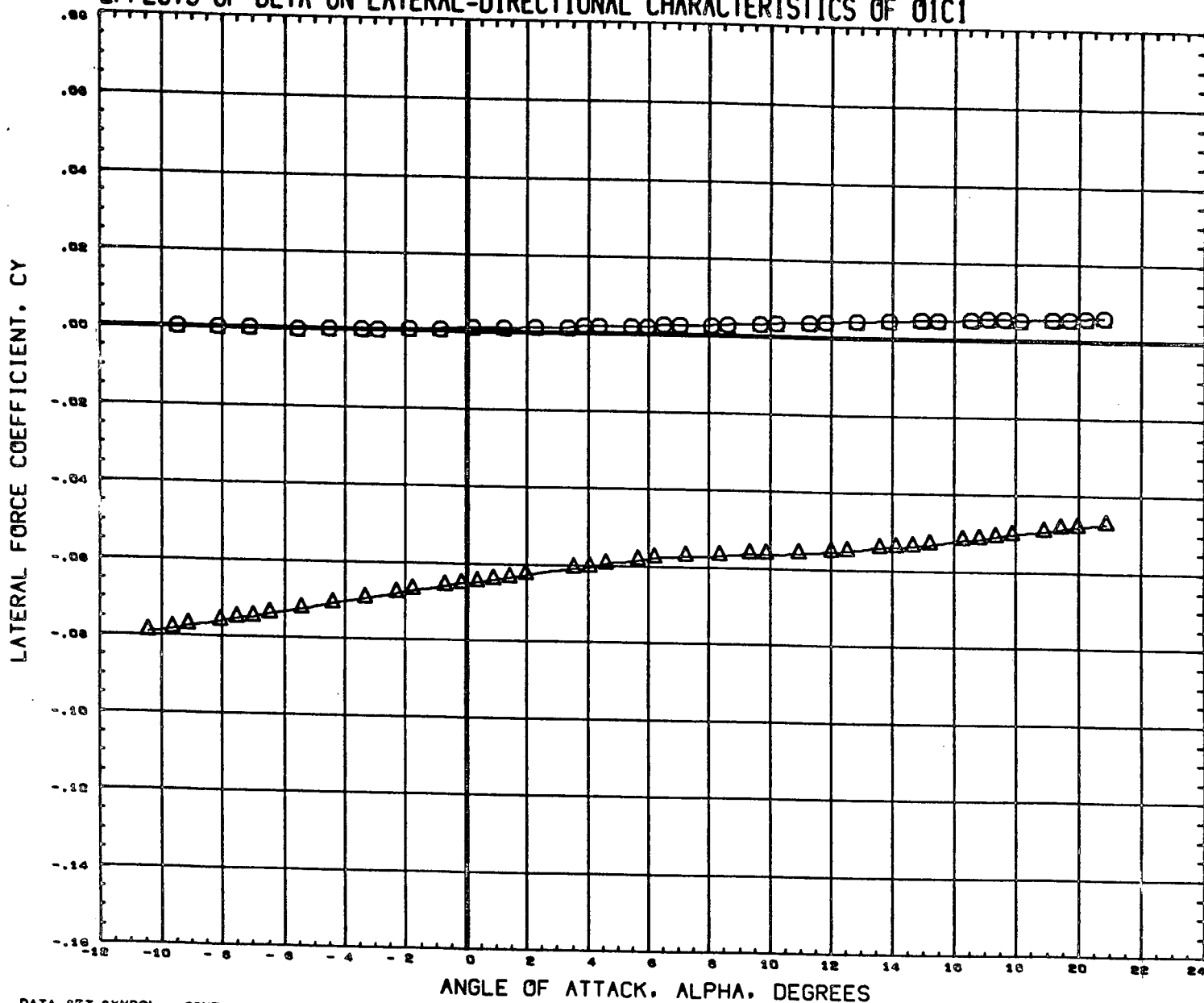


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
(RD7709)	MDAC S-222 ORBITER ALONE 01C1	0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
(RD7710)	MDAC S-222 ORBITER ALONE 01C1	0.000	0.000	0.000	0.000	LREF	609.5004 IN.
						BREF	882.0004 IN.
						XMRP	1068.0040 IN.
						YMRP	0.0000 IN.
						ZMRP	404.0004 IN.
						SCALE	0.0060

MACH 2.20

PAGE 175

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1

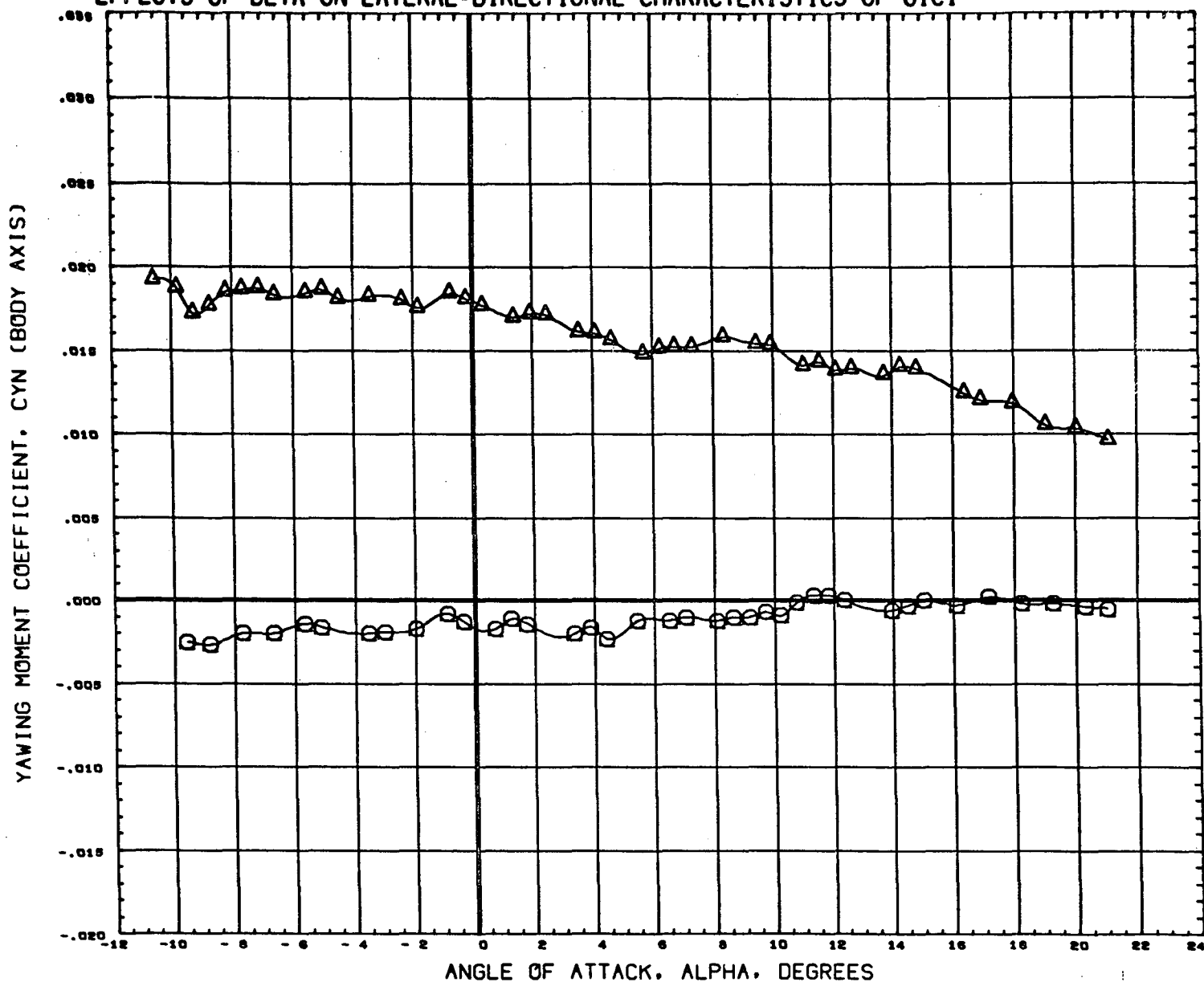


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) MDAC S-222 ORBITER ALONE O1C1
(RD7710) MDAC S-222 ORBITER ALONE O1C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3159.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1



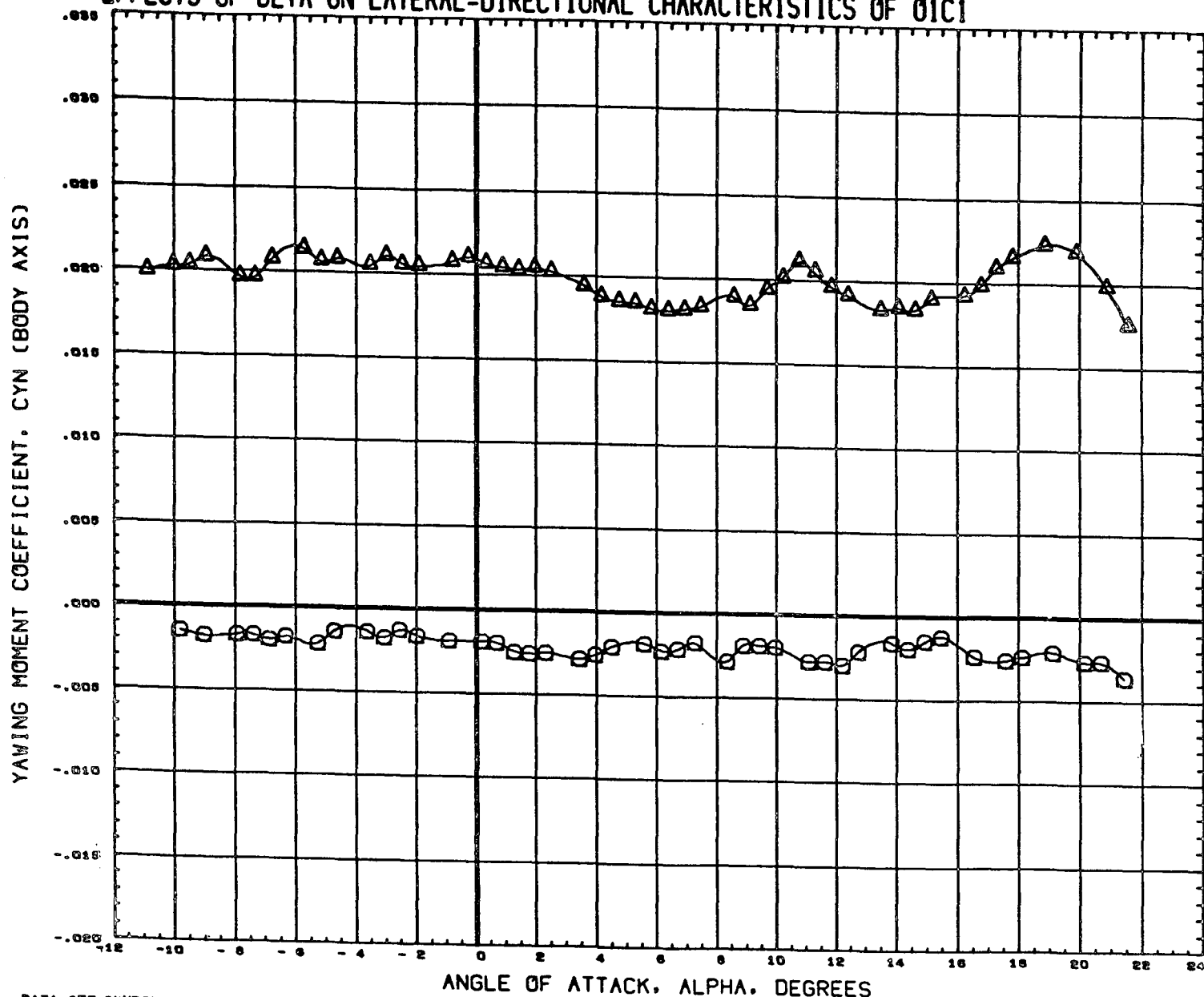
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) Q MDAC S-222 ORBITER ALONE O1C1
(RD7710) A MDAC S-222 ORBITER ALONE O1C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3046 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 177

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1

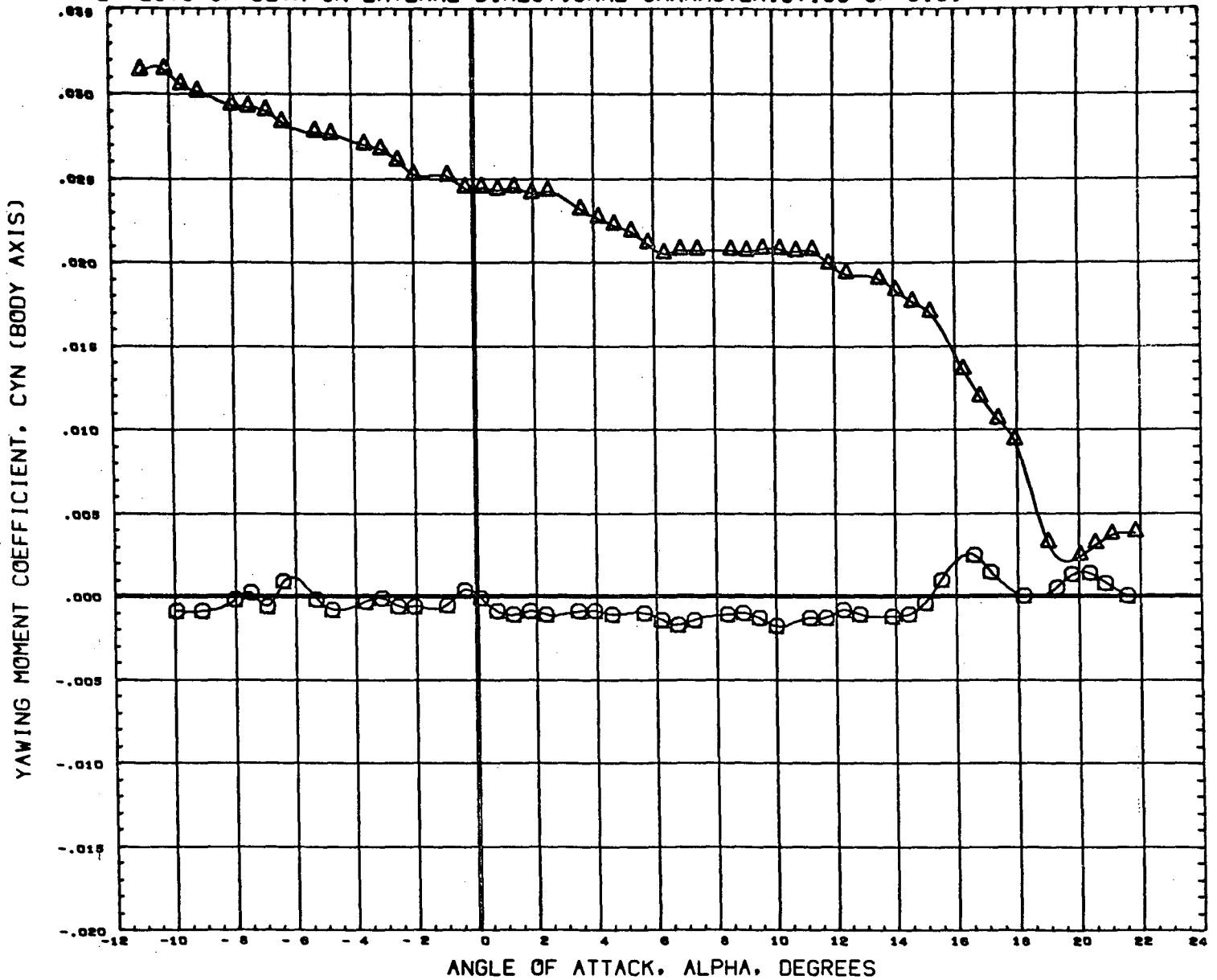


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7709) MDAC S-222 ORBITER ALONE 01C1
 (RD7710) MDAC S-222 ORBITER ALONE 01C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	682.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1



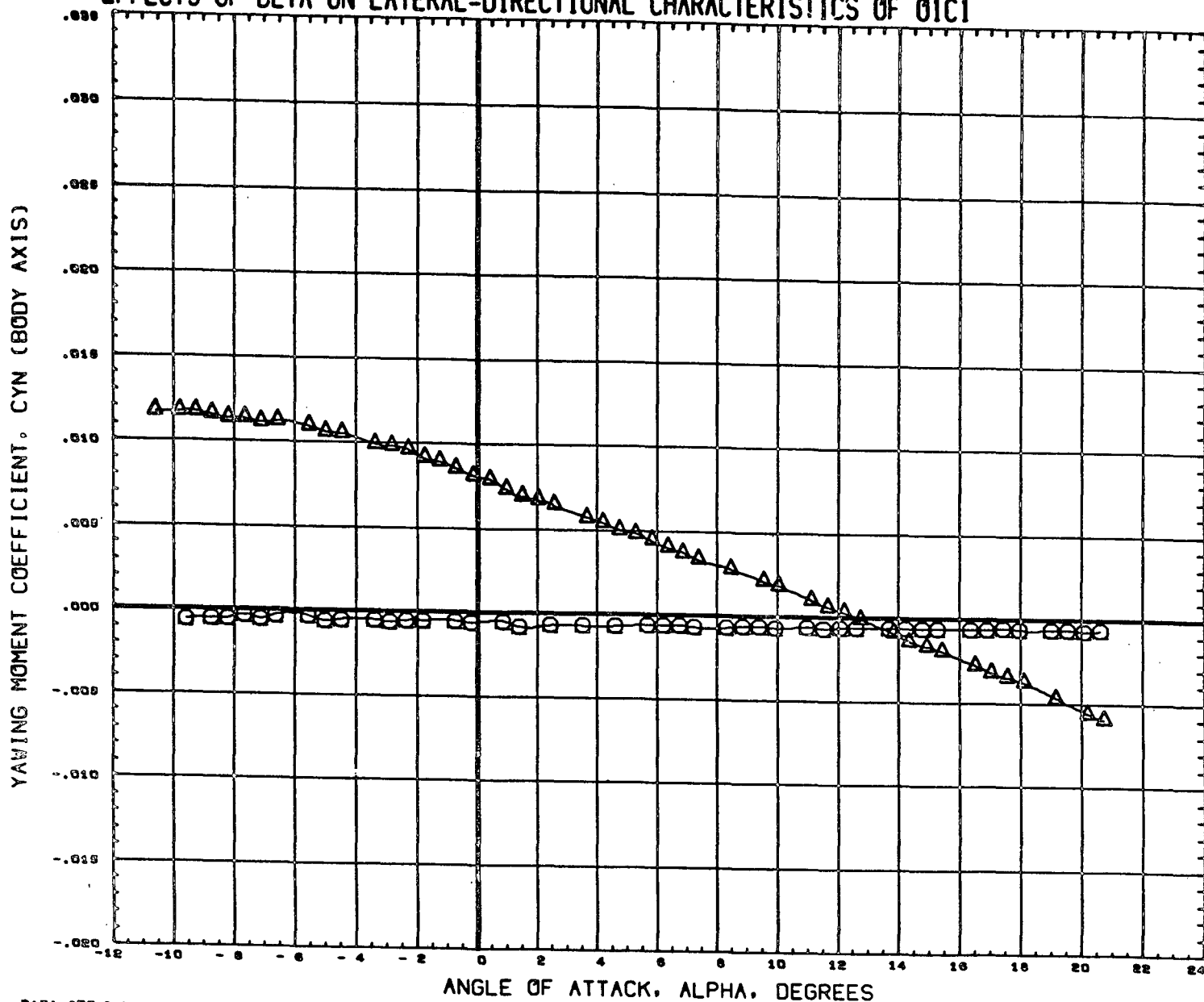
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) MDAC S-222 ORBITER ALONE O1C1
(RD7710) MDAC S-222 ORBITER ALONE O1C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	662.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 1.08

PAGE 179

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1



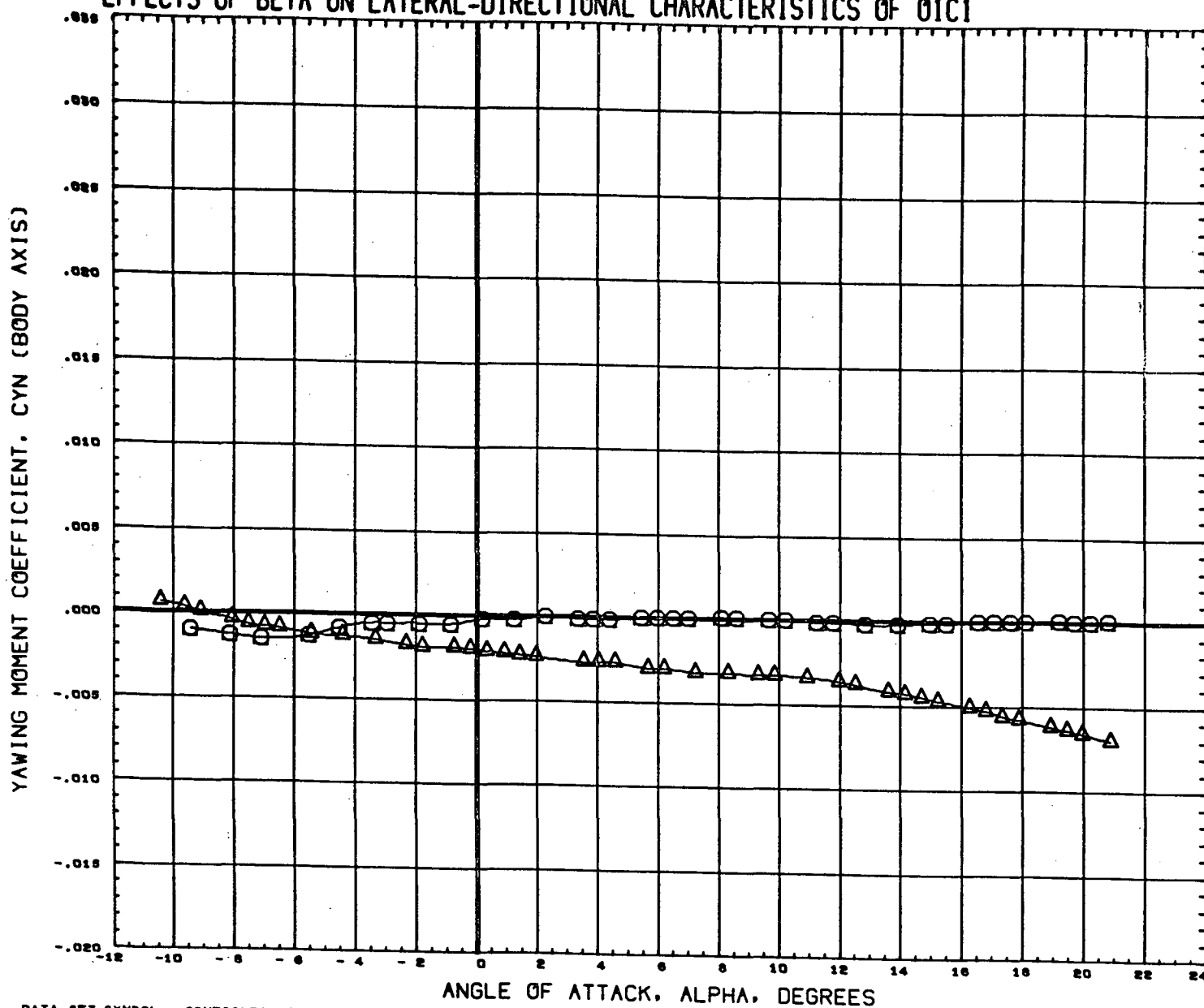
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7705) NDAC S-222 ORBITER ALONE O1C1
 (RD7710) NDAC S-222 ORBITER ALONE O1C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 180

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C1

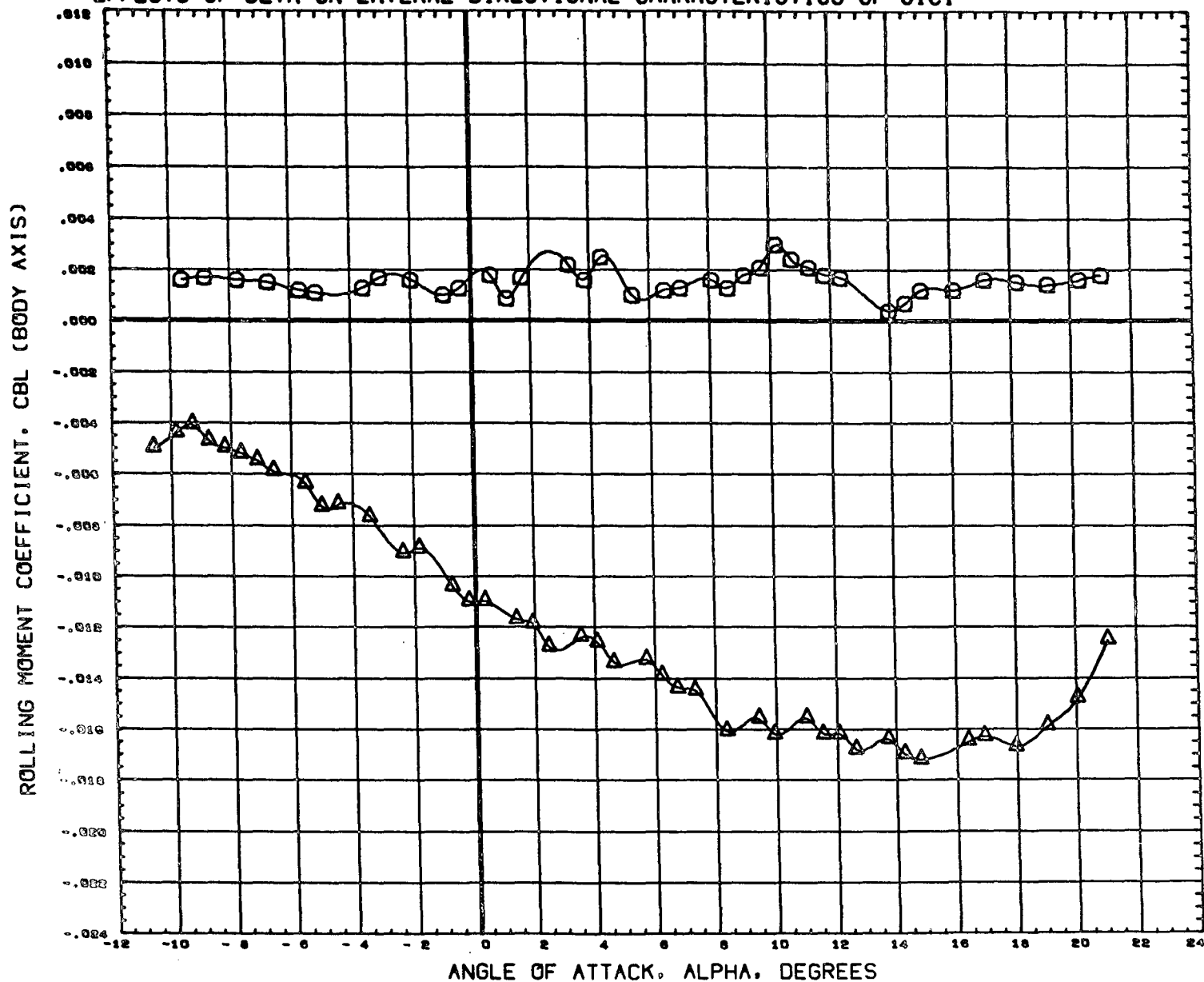


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) Δ MDAC S-222 ORBITER ALONE O1C1
(RD7710) Δ MDAC S-222 ORBITER ALONE O1C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	682.0004	IN.
				XMRP	1068.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0060	

MACH 4.47

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1



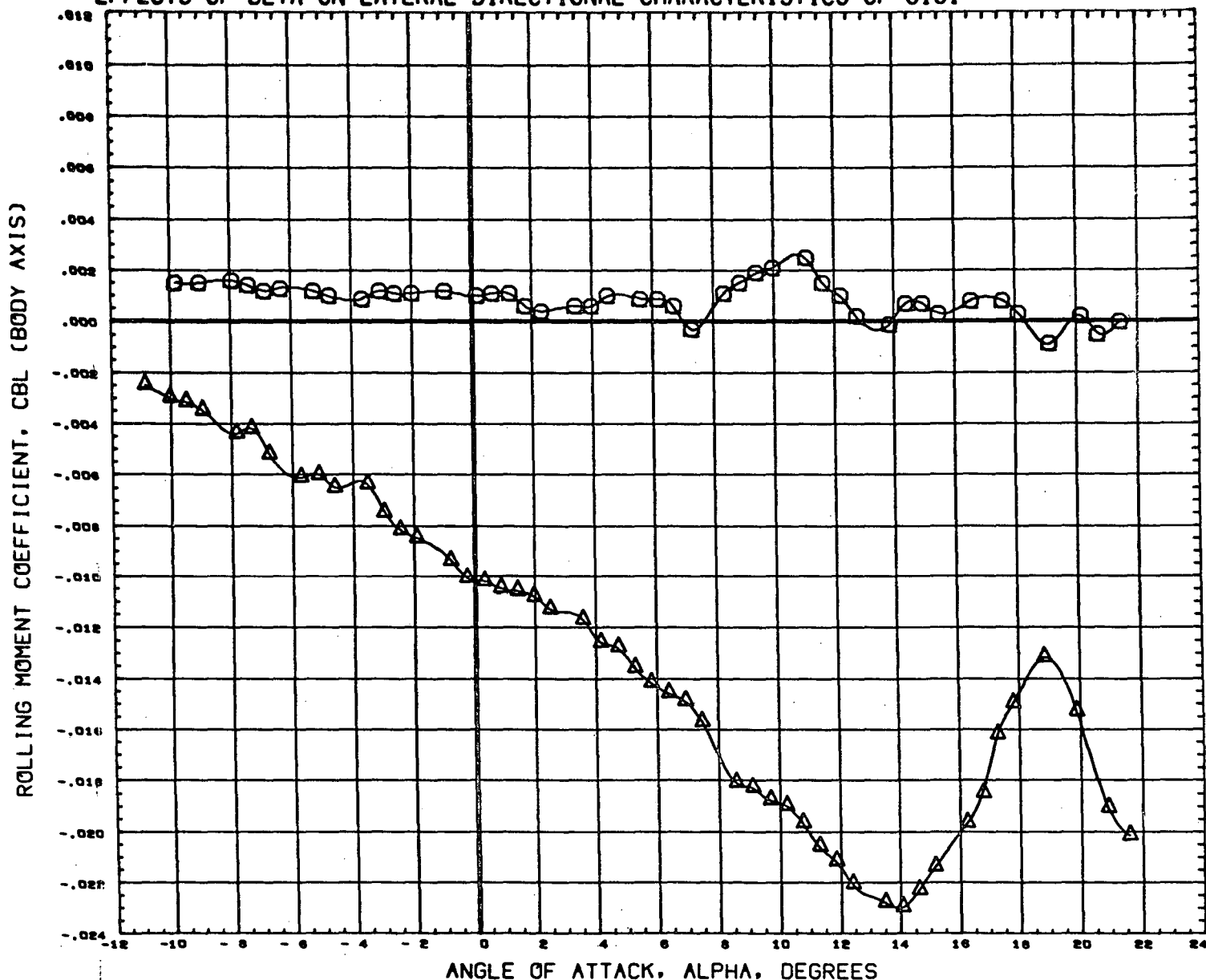
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7700) ○ MDAC S-222 ORBITER ALONE 01C1
(RD7710) △ MDAC S-222 ORBITER ALONE 01C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	862.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .56

PAGE 182

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1

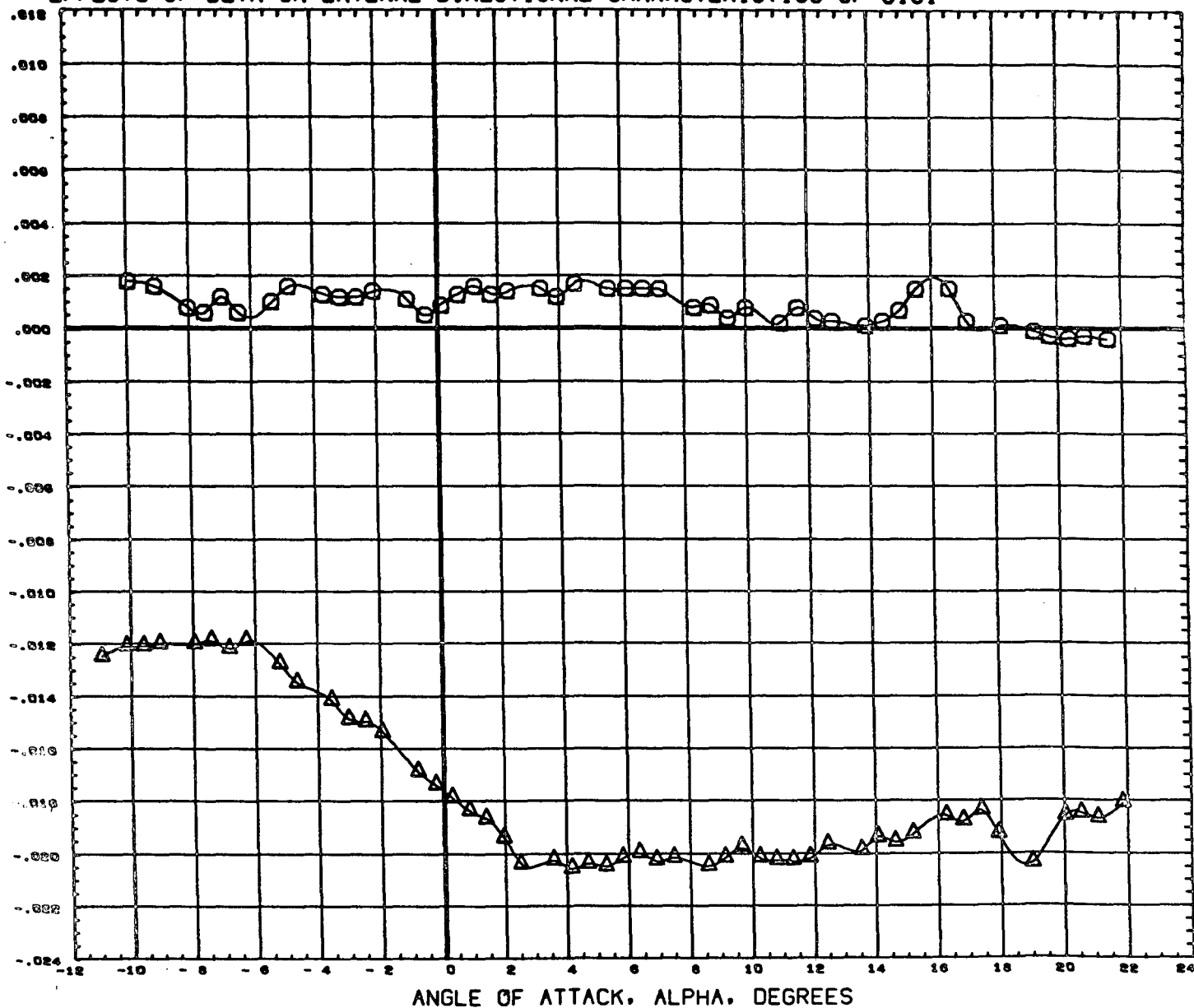


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) O MDAC S-222 ORBITER ALONE 01C1
(RD7710) Δ MDAC S-222 ORBITER ALONE 01C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION		
0.000	0.000	0.000	0.000	SREF	3155.3040	SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004	IN.
				BREF	882.0004	IN.
				XMRP	1066.0040	IN.
				YMRP	0.0000	IN.
				ZMRP	404.0004	IN.
				SCALE	0.0080	

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF OIC1

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) O MDAC S-222 ORBITER ALONE OIC1
(RD7710) Δ MDAC S-222 ORBITER ALONE OIC1

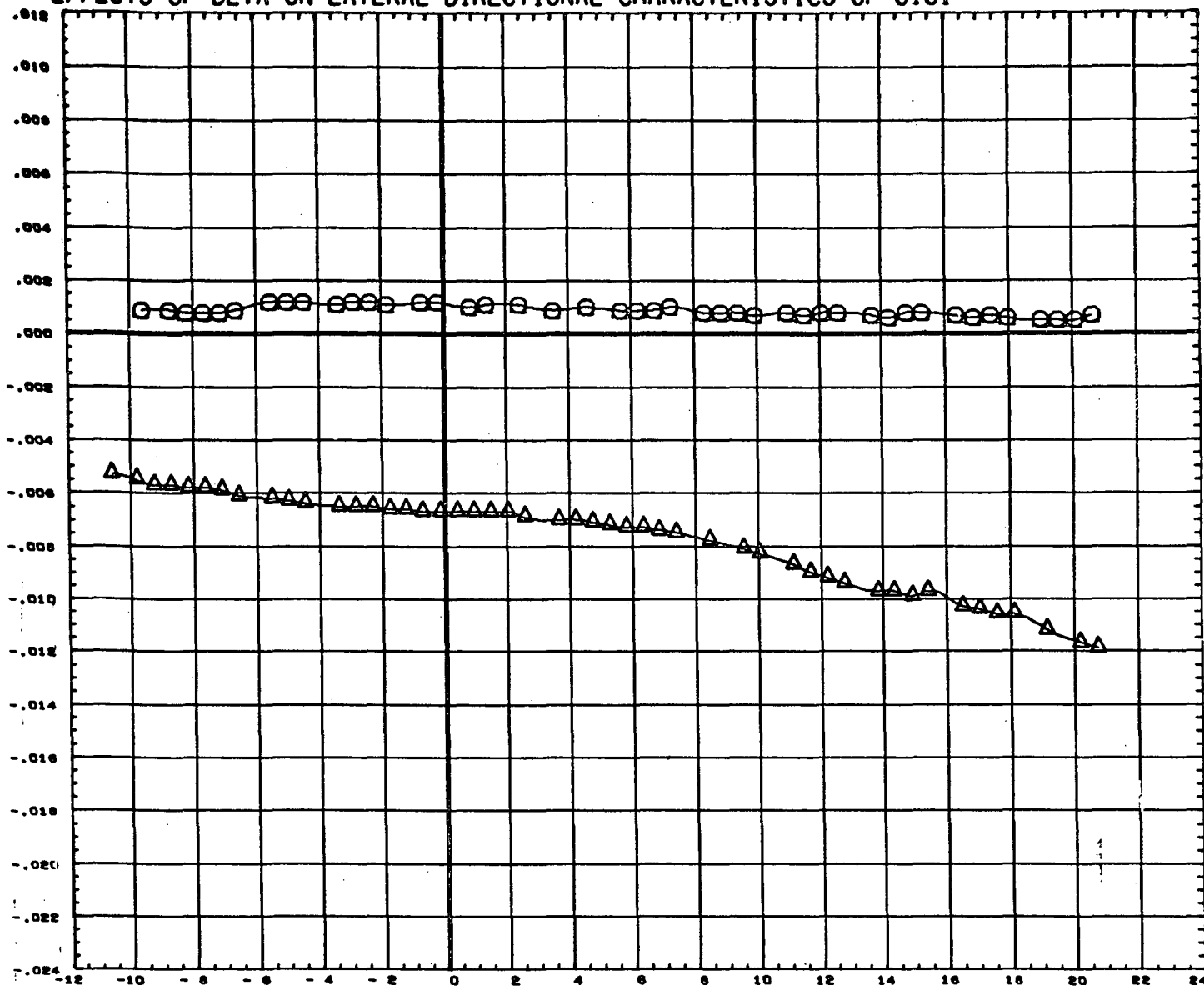
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XHRP	1066.0040 IN.
				YHRP	0.0000 IN.
				ZHRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

PAGE 184

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



ANGLE OF ATTACK, ALPHA, DEGREES

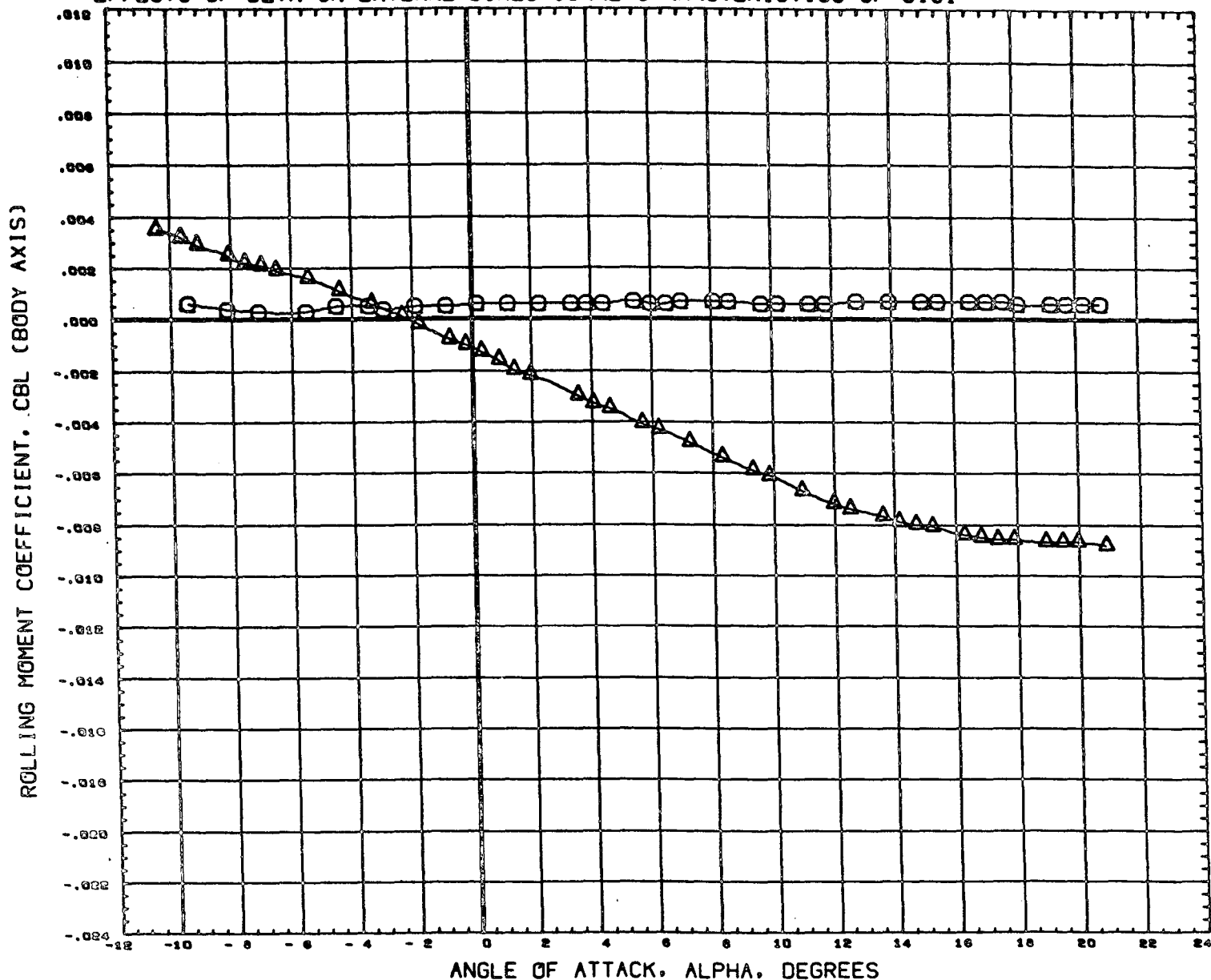
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7709) MDAC S-222 ORBITER ALONE 01C1
(RD7710) MDAC S-222 ORBITER ALONE 01C1

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 185

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C1



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RDP700) ○ MDAC S-222 ORBITER ALONE 01C1
(RDP710) △ MDAC S-222 ORBITER ALONE 01C1

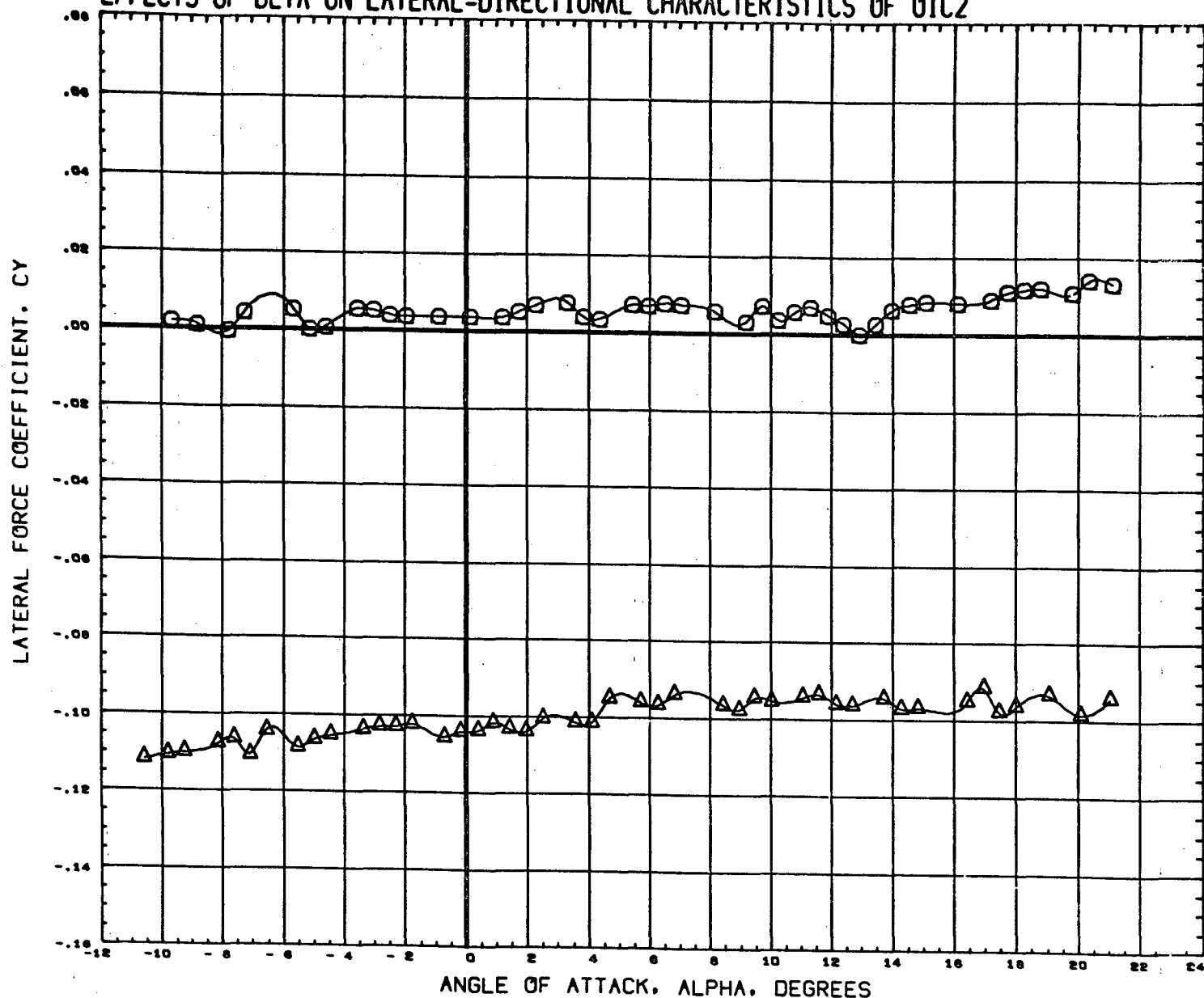
BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
6.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 862.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0000

MACH 4.47

PAGE 186

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2

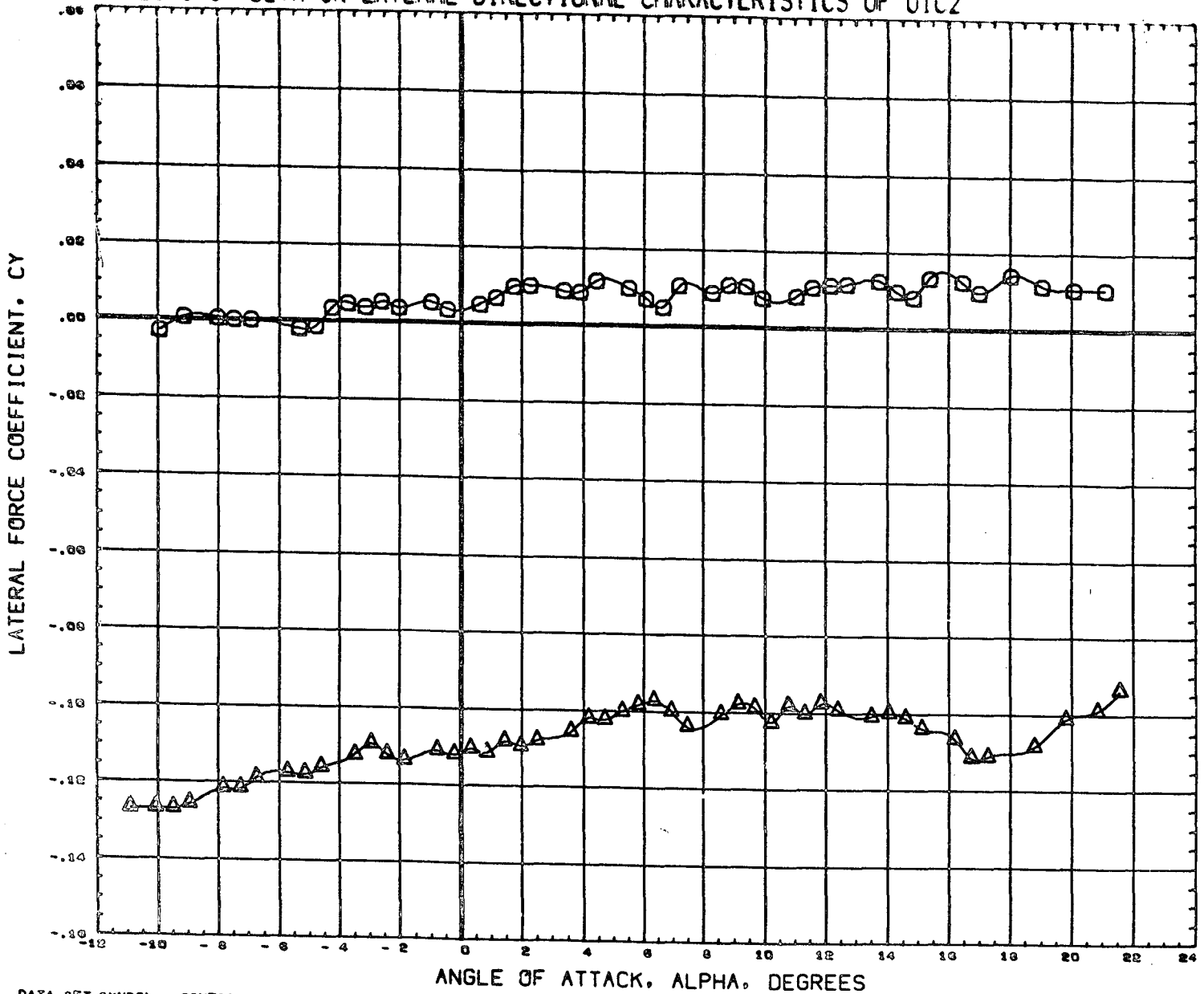


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) ○ MDAC S-222 ORBITER ALONE 01C2
(RD7712) △ MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	862.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .58

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF O1C2

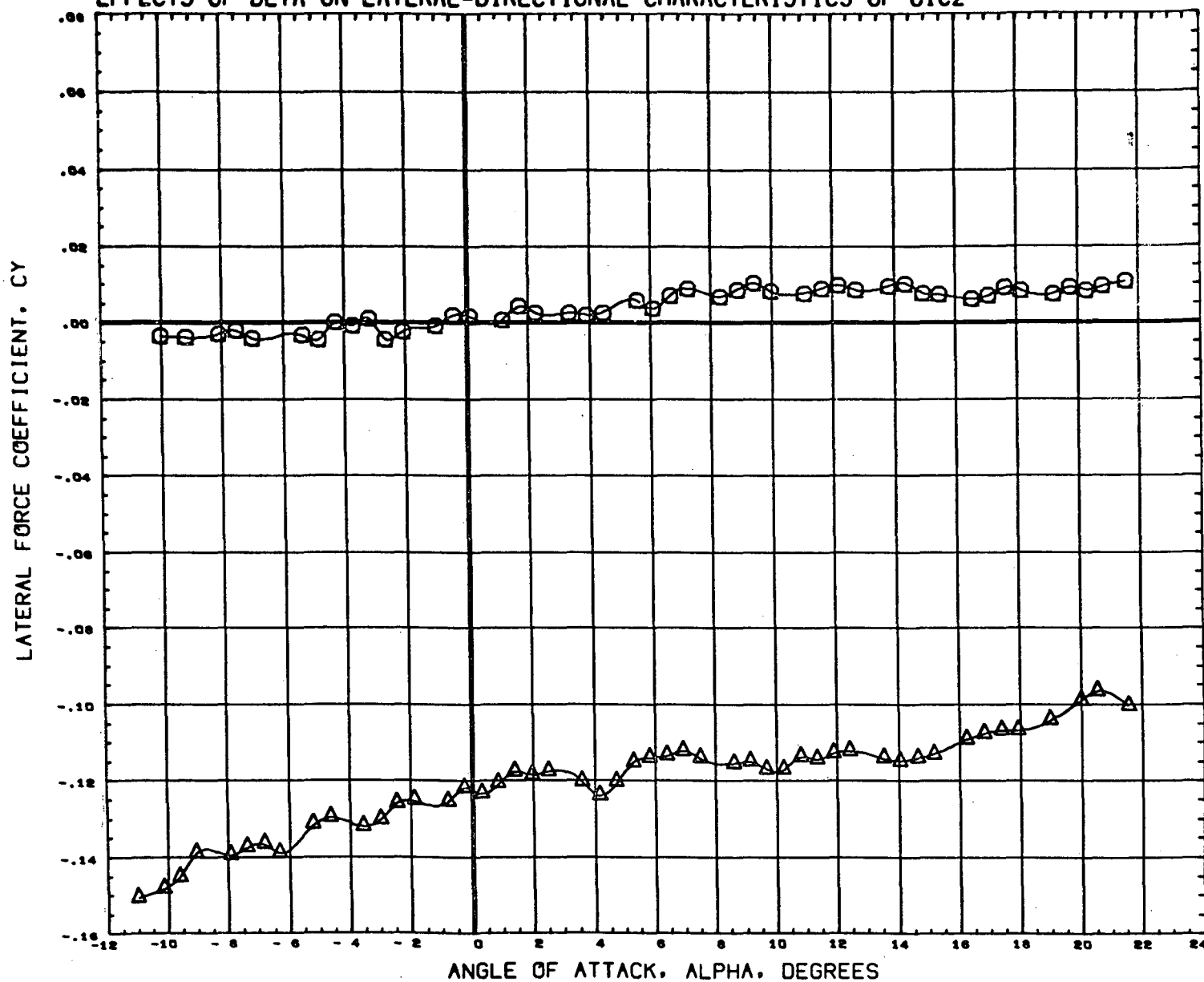


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) : MDAC S-222 ORBITER ALONE O1C2
(RD7712) : MDAC S-222 ORBITER ALONE O1C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.9004 IN.
				BREF	682.0004 IN.
				XMRP	1068.0040 IN.
				YHRP	0.0000 IN.
				ZHRP	404.0004 IN.
				SCALE	0.0060

MACH .89

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



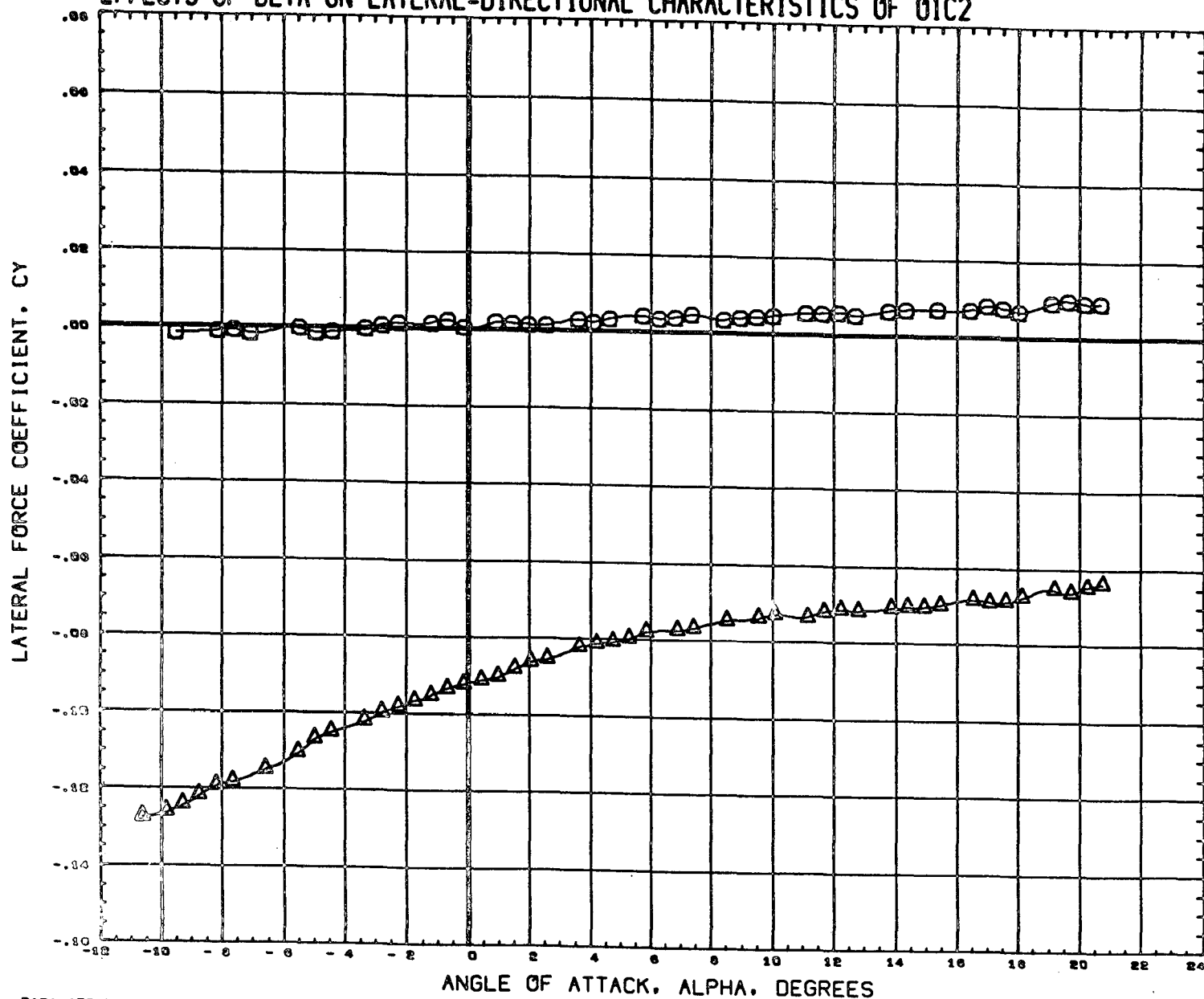
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) MDAC S-222 ORBITER ALONE 01C2
(RD7712) MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	887.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

PAGE 189

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



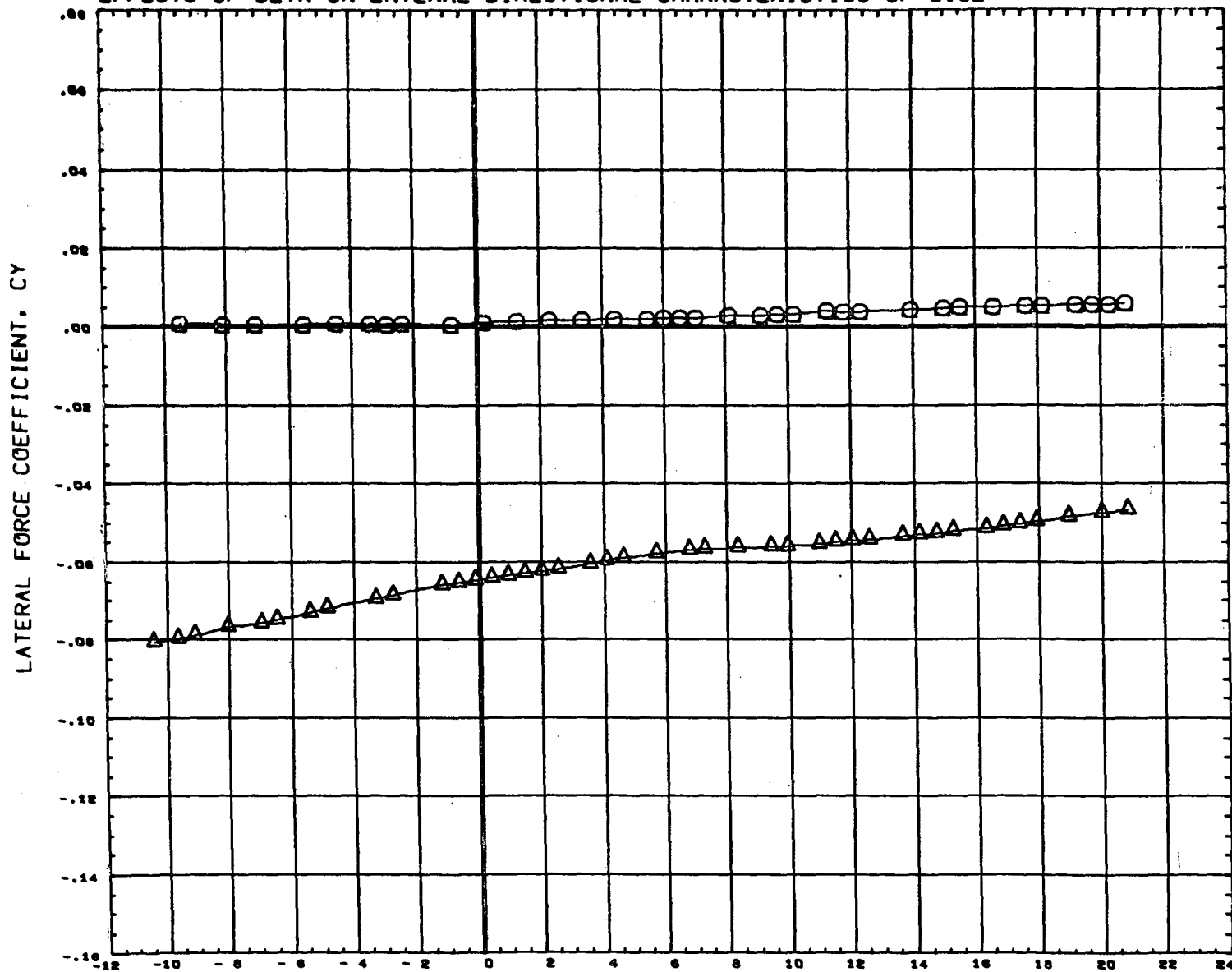
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) ○ MDAC S-222 ORBITER ALONE 01C2
(RD7712) △ MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 2.20

PAGE 190

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



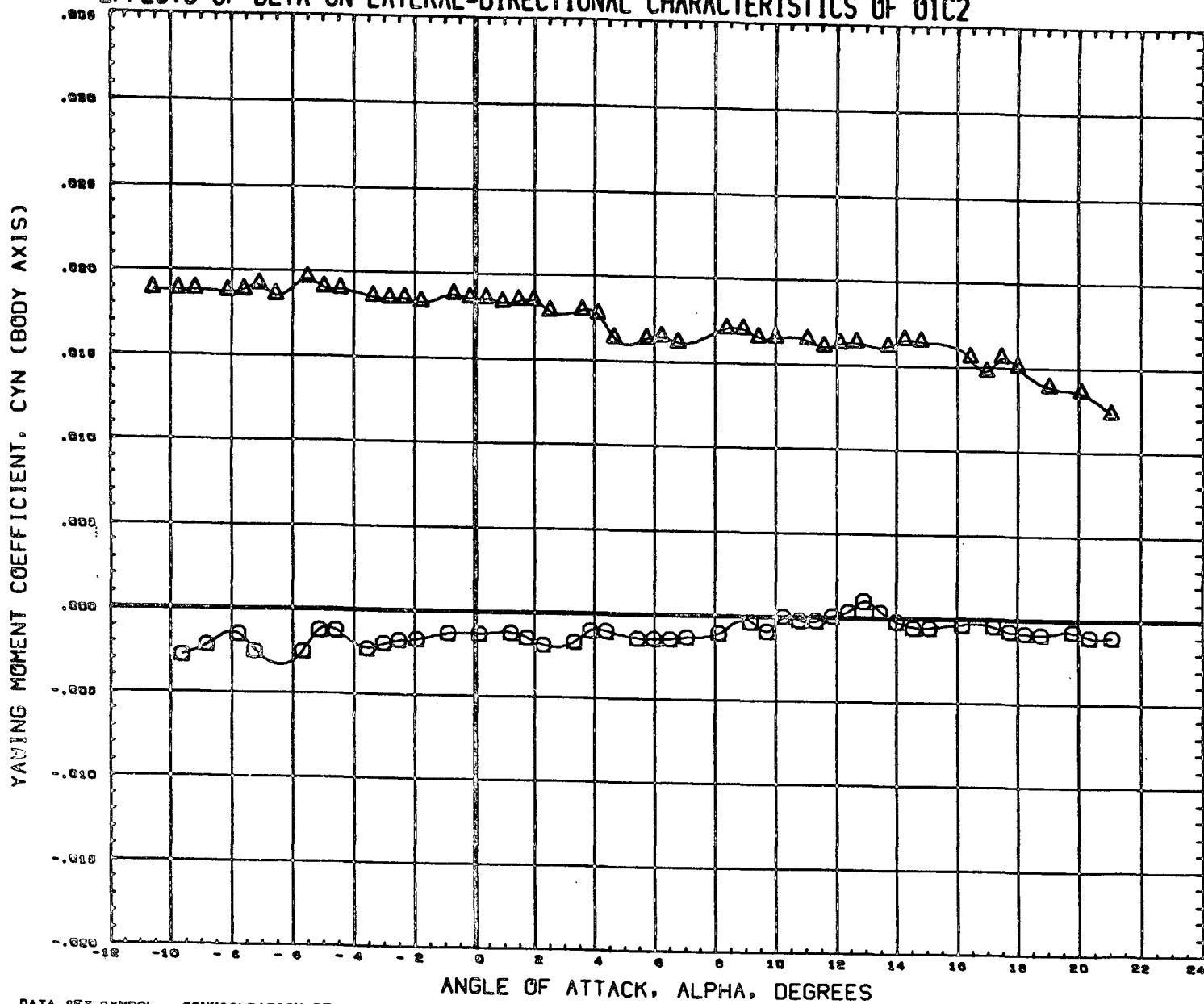
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7711) MDAC S-222 ORBITER ALONE 01C2
 (RD7712) MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0080

MACH 4.47

PAGE 191

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



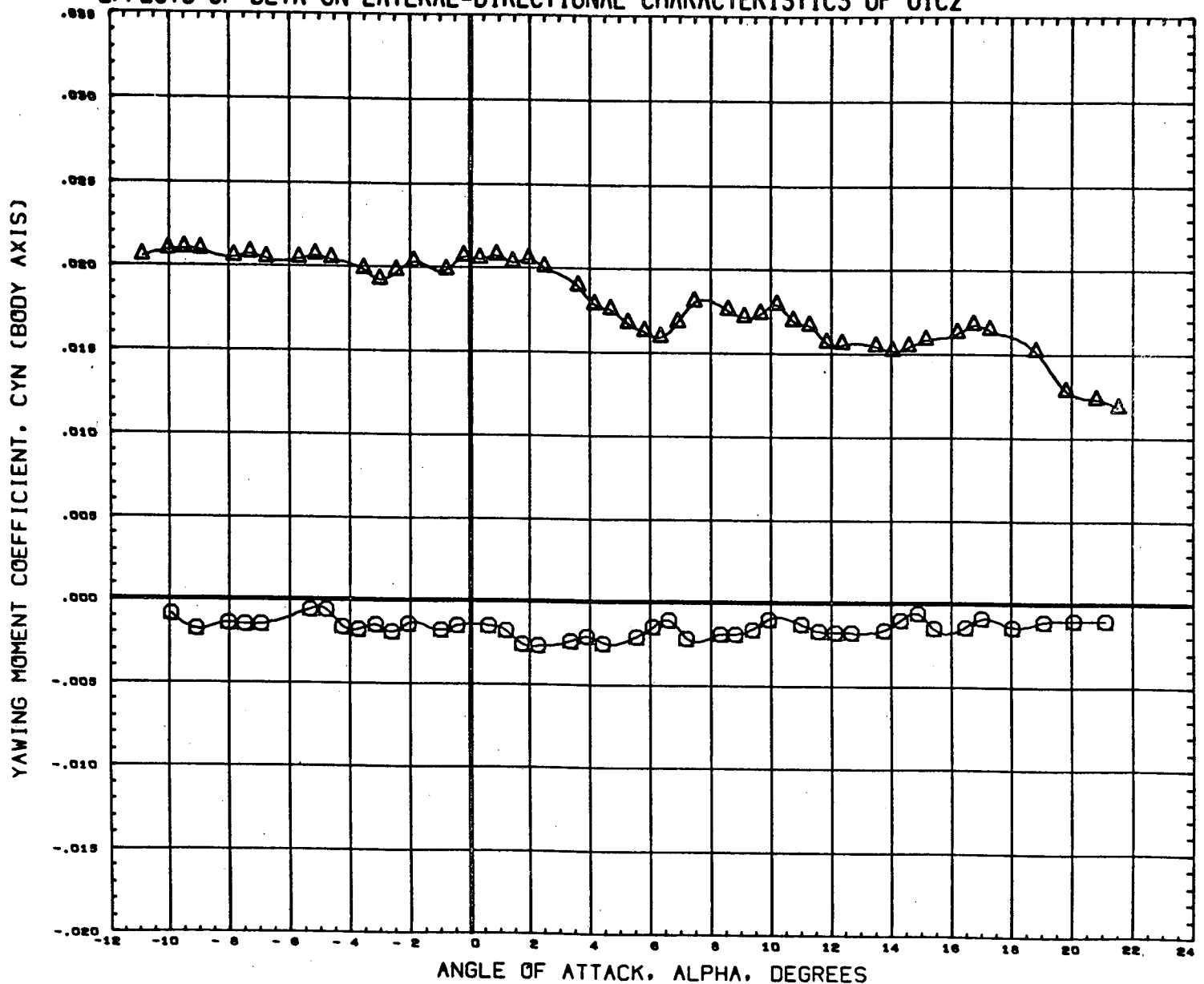
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RDPP11) MDAC S-222 ORBITER ALONE 01C2
(RDPP12) MDAC S-222 ORBITER ALONE 01C2

BETA ELEVTR AILRON RUDDER
0.000 0.000 0.000 0.000
0.000 0.000 0.000 0.000

REFERENCE INFORMATION
SREF 3155.3040 Sq.Ft.
LREF 609.3004 IN.
BREF 682.0004 IN.
XMRP 1068.0040 IN.
YMRP 0.0000 IN.
ZMRP 404.0004 IN.
SCALE 0.0060

MACH .58

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



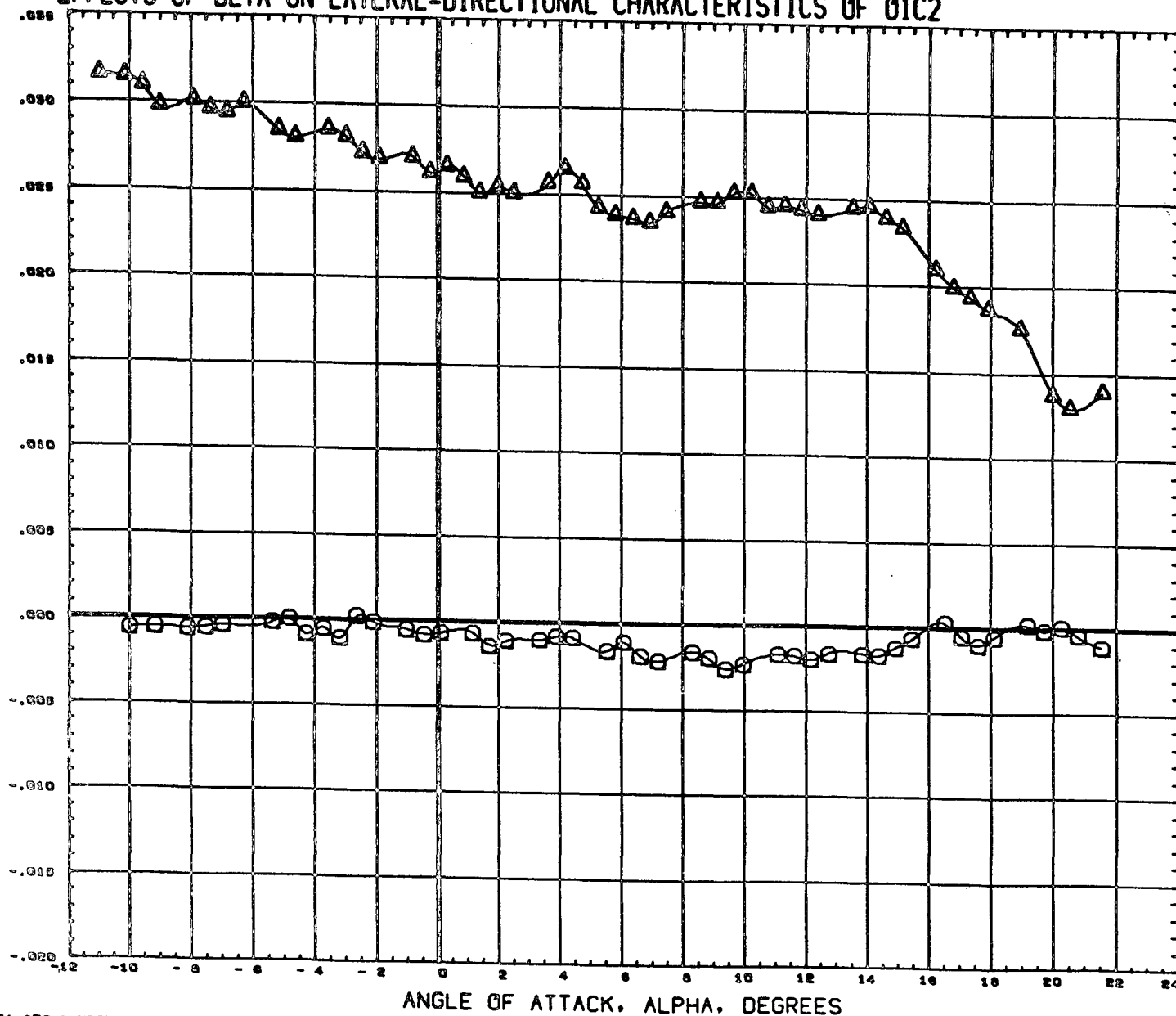
DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) ○ MDAC S-222 ORBITER ALONE 01C2
(RD7712) △ MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3199.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .89

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

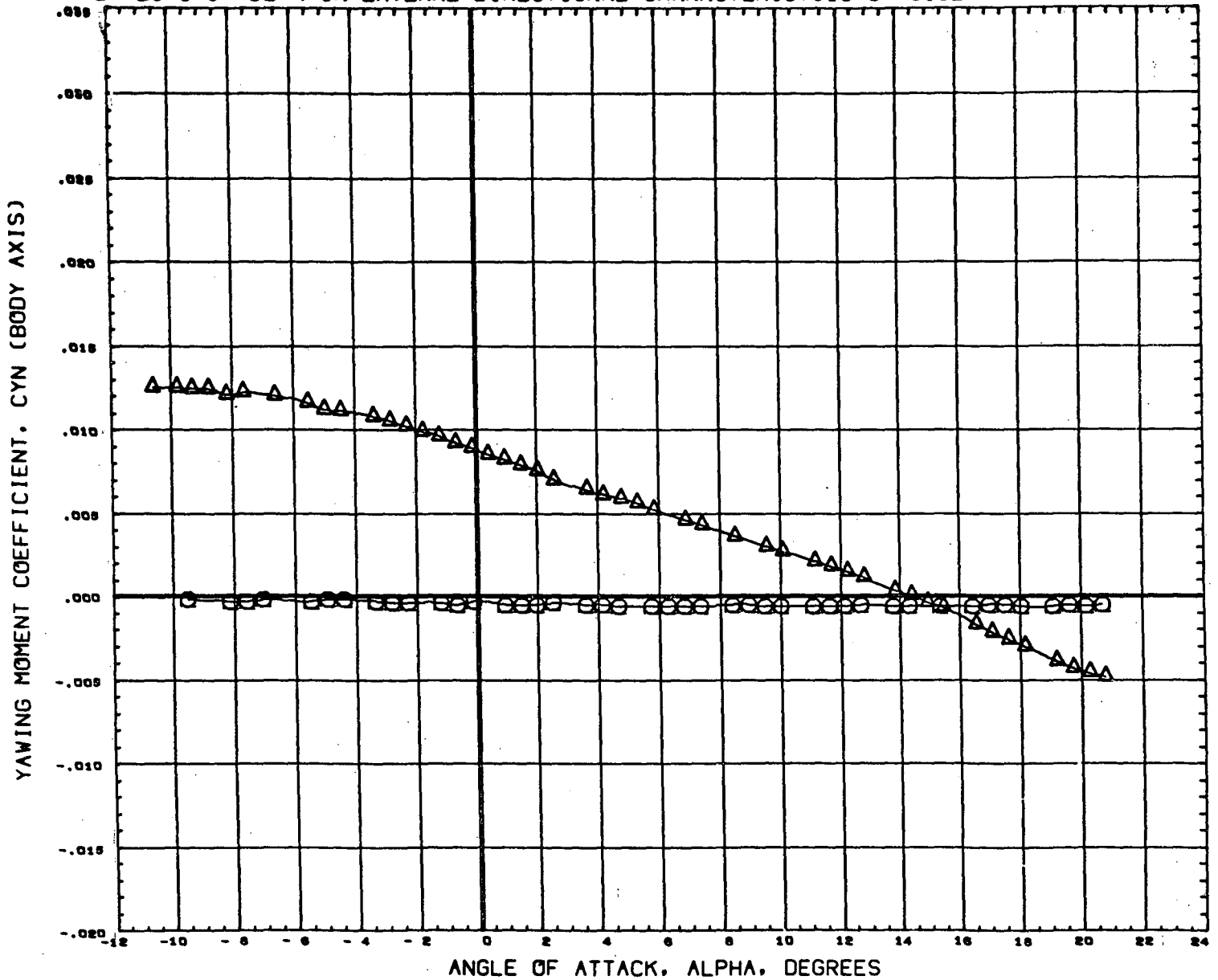


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) MDAC 3-222 ORBITER ALONE 01C2
(RD7712) MDAC 3-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.3004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 1.08

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7711) MDAC S-222 ORBITER ALONE 01C2
 (RD7712) MDAC S-222 ORBITER ALONE 01C2

BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.7004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

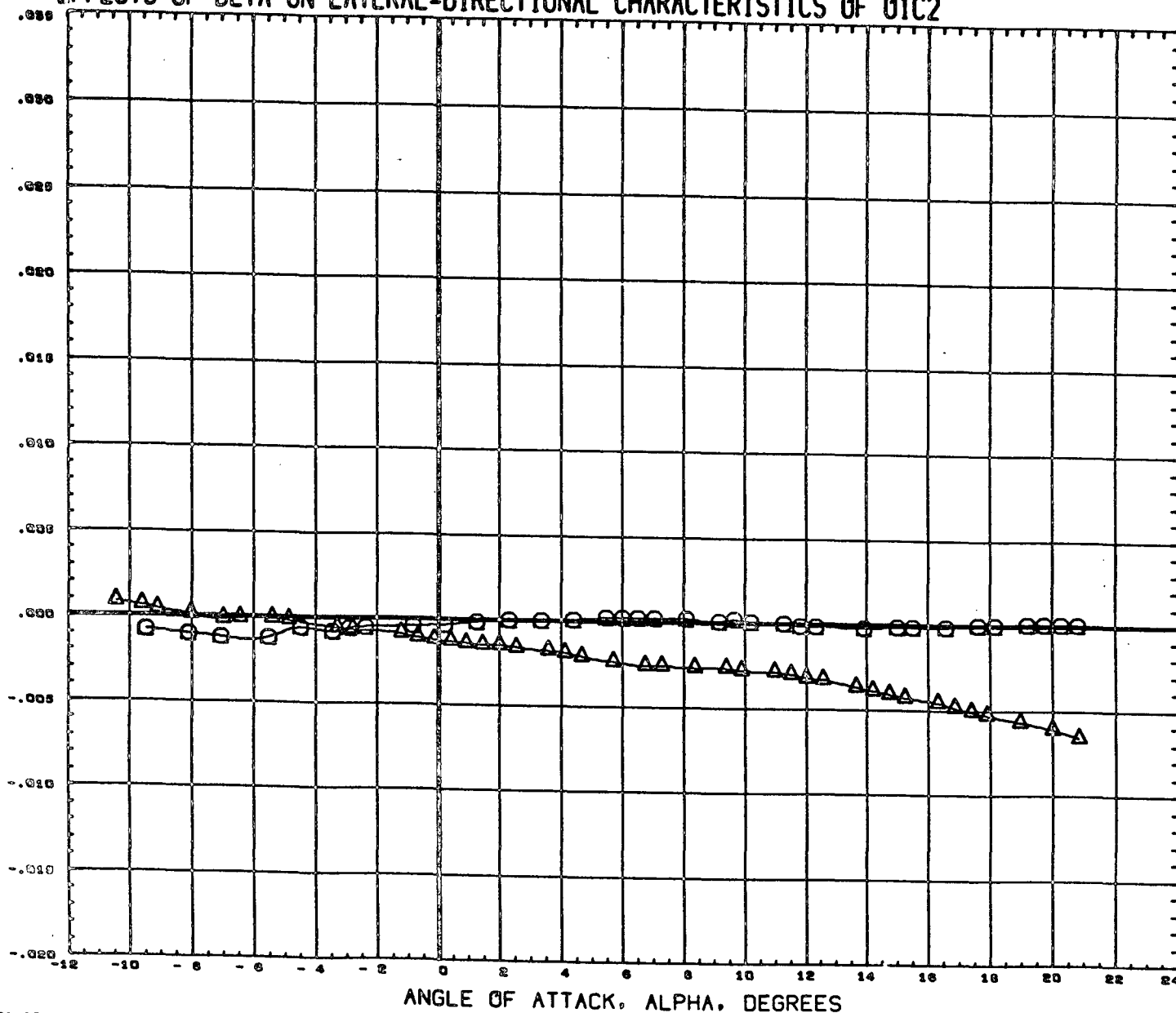
MACH

2.20

PAGE 195

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

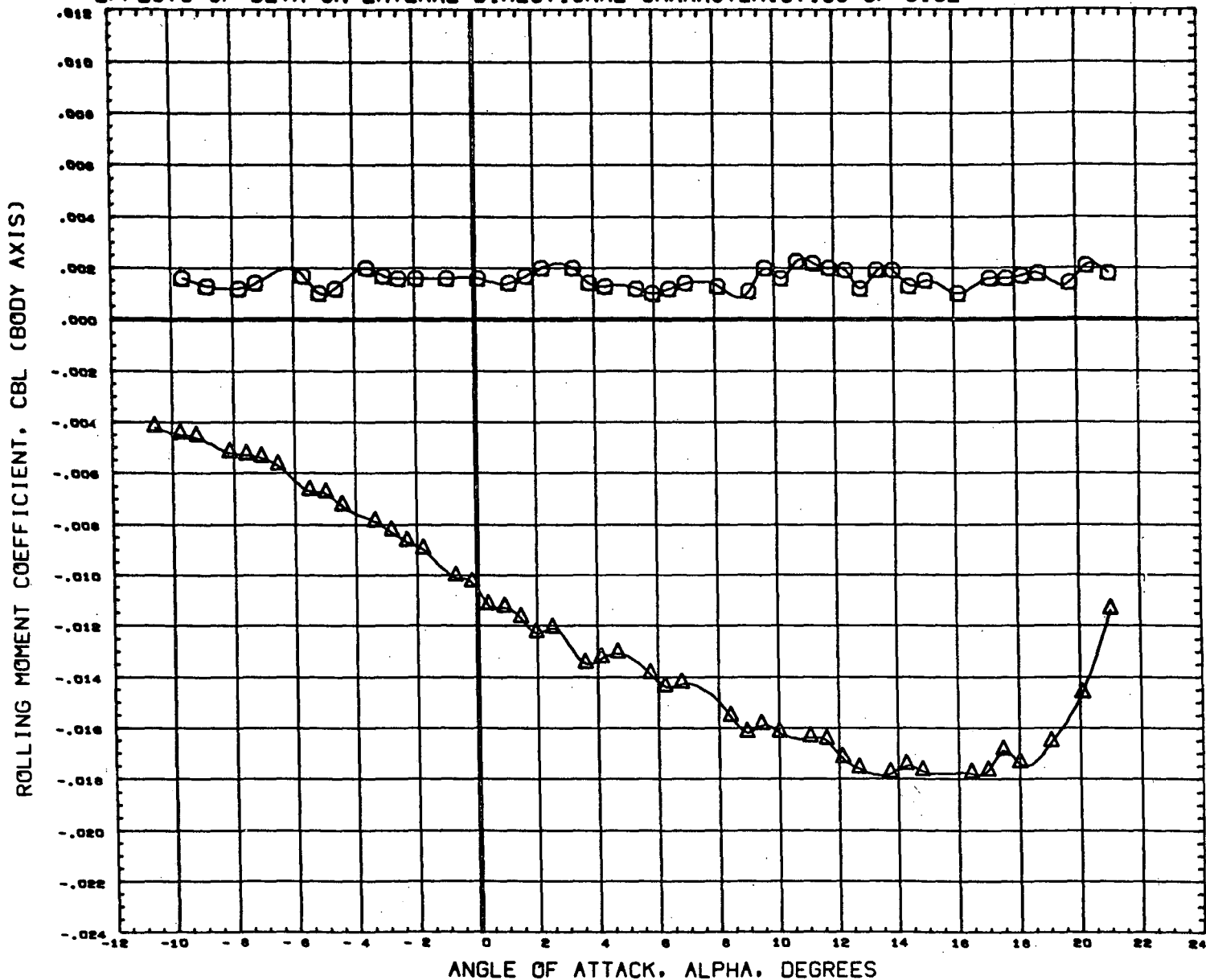


DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) MDAC S-222 ORBITER ALONE 01C2
(RD7712) MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.3004 IN.
				SREF	882.0004 IN.
				XMRP	1066.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH 4.47

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



DATA SET SYMBOL CONFIGURATION DESCRIPTION
(RD7711) ○ MDAC S-222 ORBITER ALONE 01C2
(RD7712) △ MDAC S-222 ORBITER ALONE 01C2

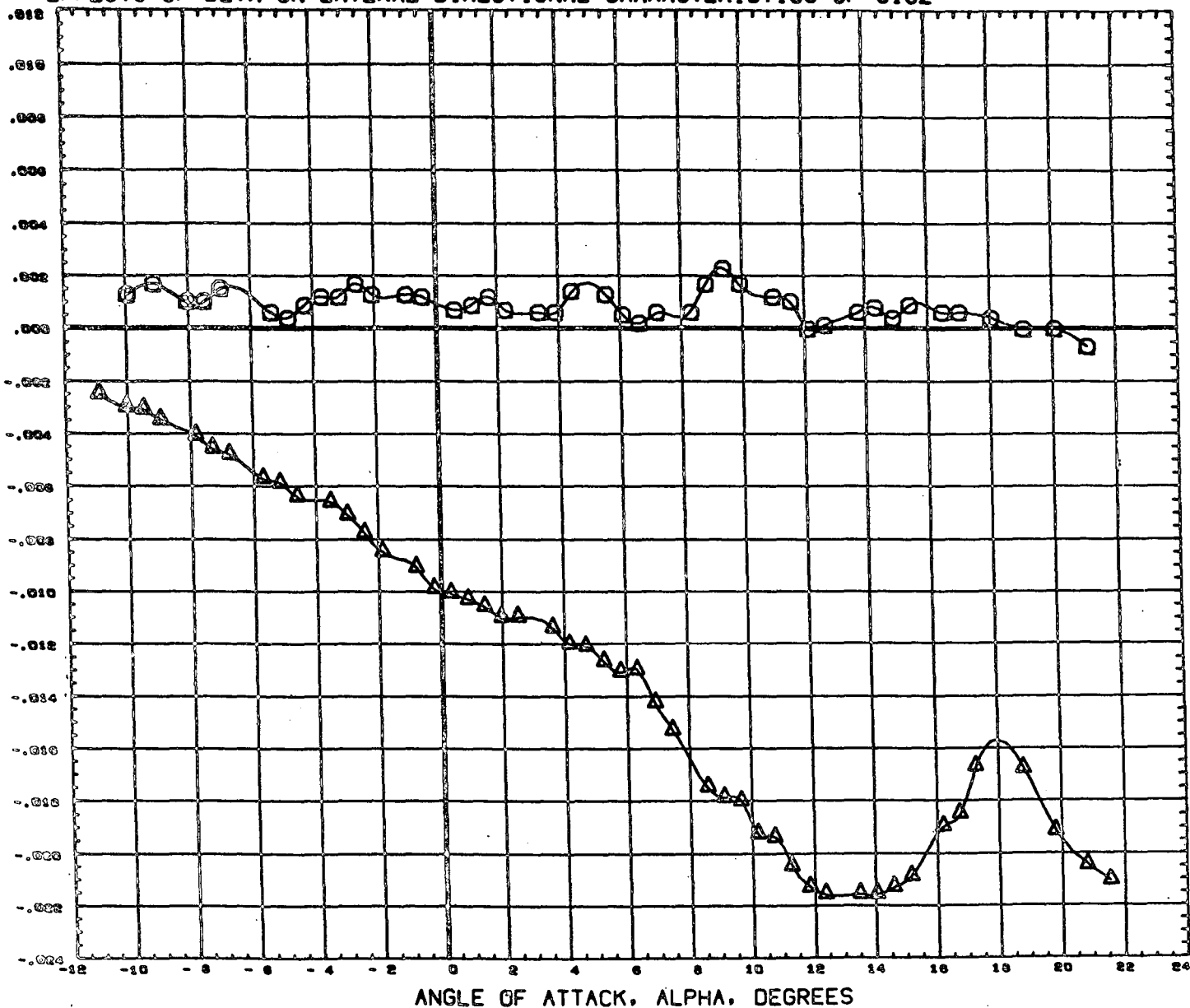
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
8.000	0.000	0.000	0.000	LREF	809.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.3040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

MACH .58

PAGE 197

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (R07711) MDAC S-222 ORBITER ALONE 01C2
 (R07712) MDAC S-222 ORBITER ALONE 01C2

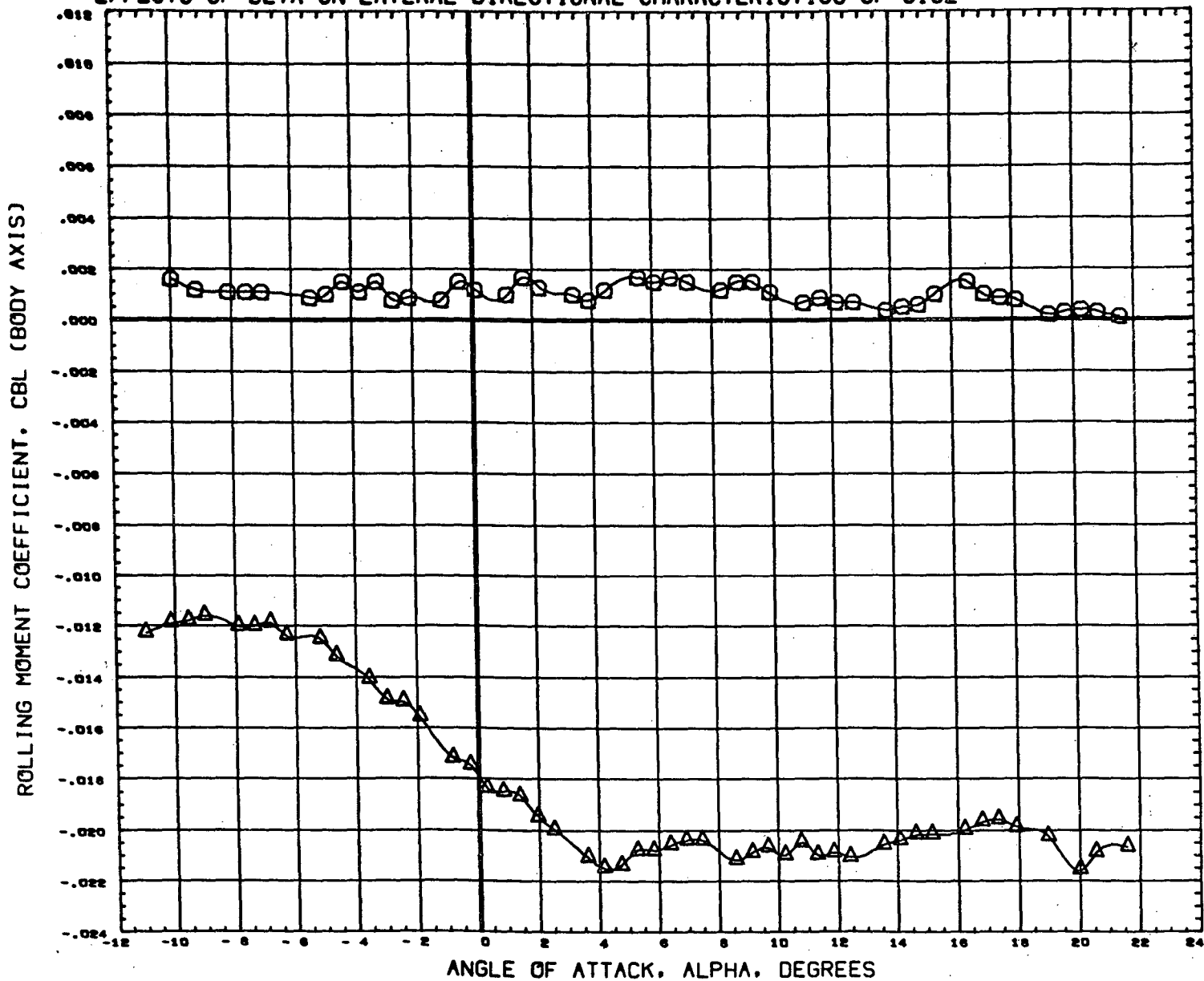
BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION
0.000	0.000	0.000	0.000	SREF 3133.3040 SQ.FT.
6.000	0.000	0.000	0.000	LREF 609.5004 IN.
				BREF 882.0004 IN.
				XMRF 1066.0040 IN.
				YMRF 0.0000 IN.
				ZMRF 404.0004 IN.
				SCALE 0.0060

MACH

.89

PAGE 198

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2

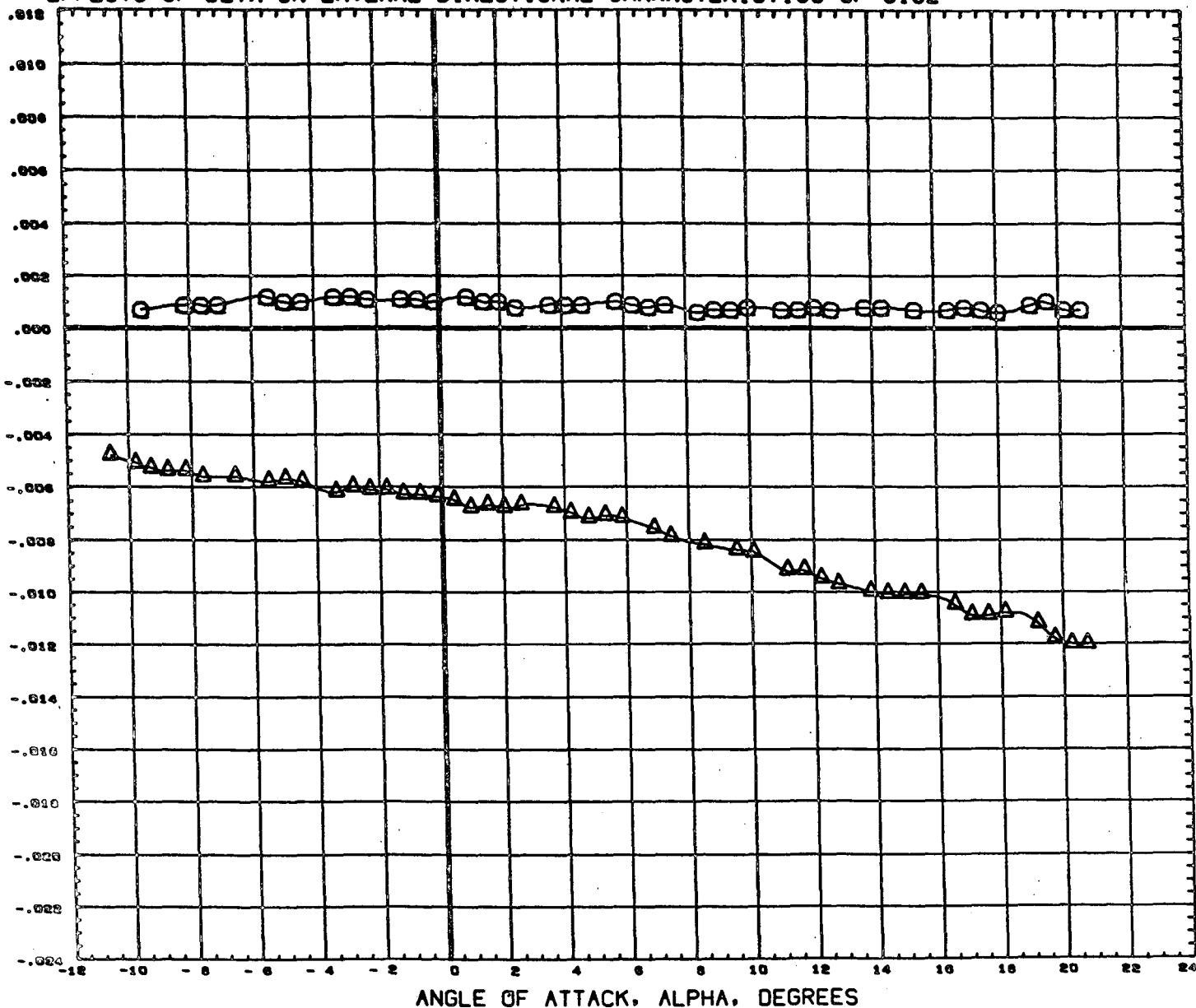


DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7711) MDAC S-222 ORBITER ALONE 01C2
 (RD7712) MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 Sq.Ft.
6.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	662.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7711) Q MDAC S-222 ORBITER ALONE 01C2
 (RD7712) A MDAC S-222 ORBITER ALONE 01C2

BETA ELEVTR AILRON RUDDER
 0.000 0.000 0.000 0.000
 6.000 0.000 0.000 0.000

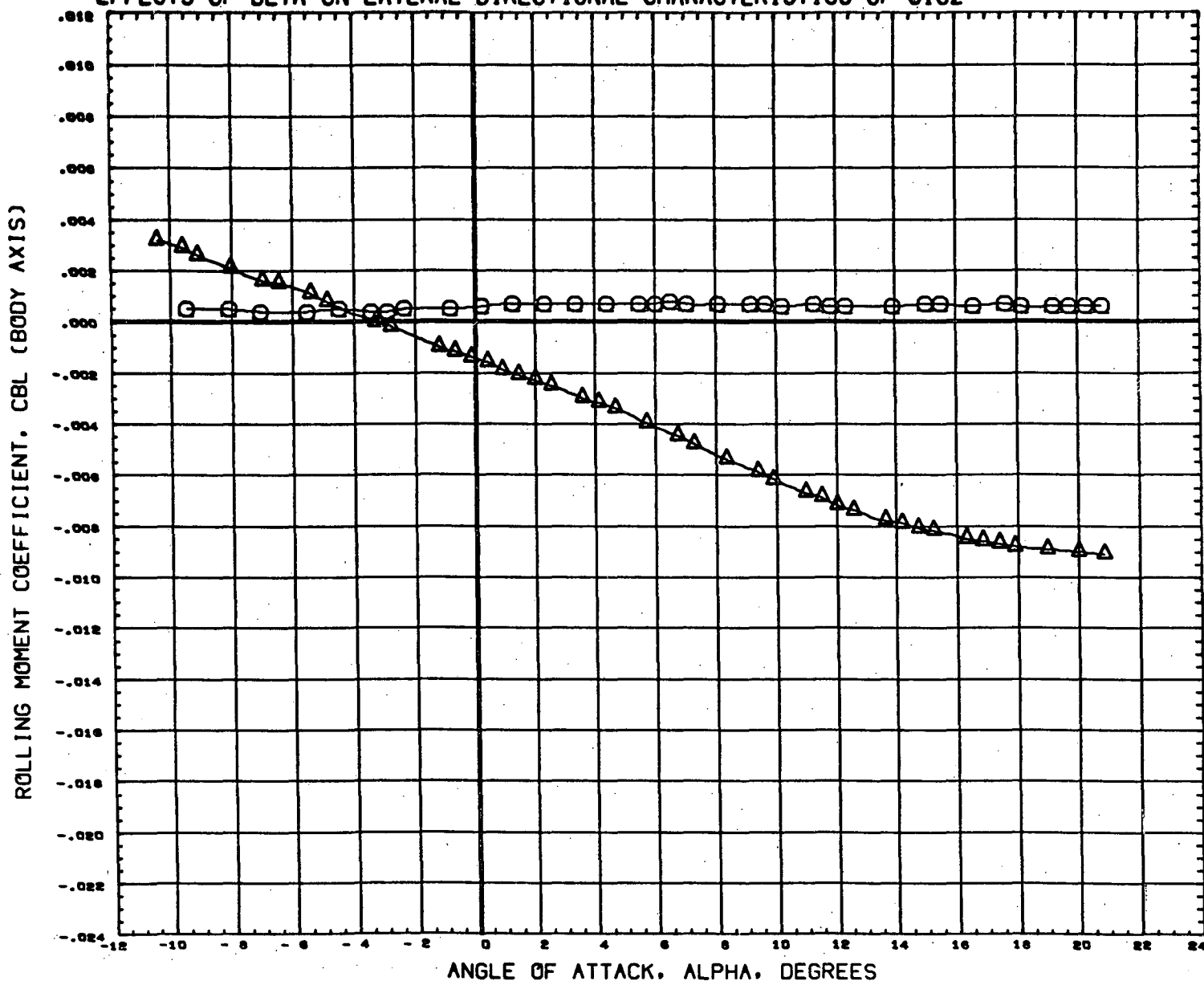
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.9004 IN.
 BREF 682.0004 IN.
 XMRP 1066.0040 IN.
 YMRP 0.0000 IN.
 ZMRP 404.0004 IN.
 SCALE 0.0060

MACH

2.20

PAGE 200

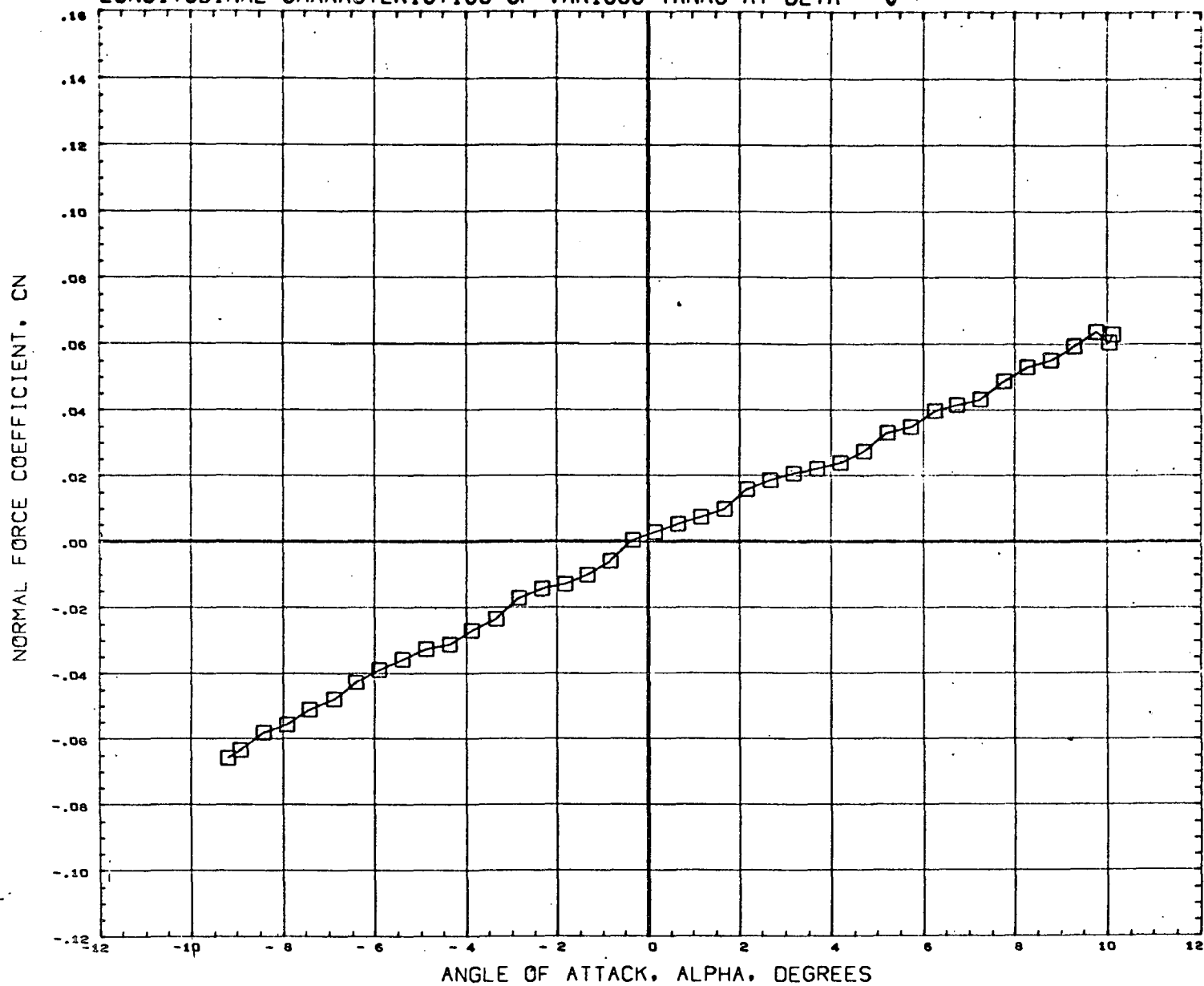
EFFECTS OF BETA ON LATERAL-DIRECTIONAL CHARACTERISTICS OF 01C2



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (RD7711) MDAC S-222 ORBITER ALONE 01C2
 (RD7712) MDAC S-222 ORBITER ALONE 01C2

BETA	ELEVTR	AILRON	RUDDER	REFERENCE INFORMATION	
0.000	0.000	0.000	0.000	SREF	3155.3040 SQ.FT.
0.000	0.000	0.000	0.000	LREF	609.5004 IN.
				BREF	882.0004 IN.
				XMRP	1068.0040 IN.
				YMRP	0.0000 IN.
				ZMRP	404.0004 IN.
				SCALE	0.0060

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

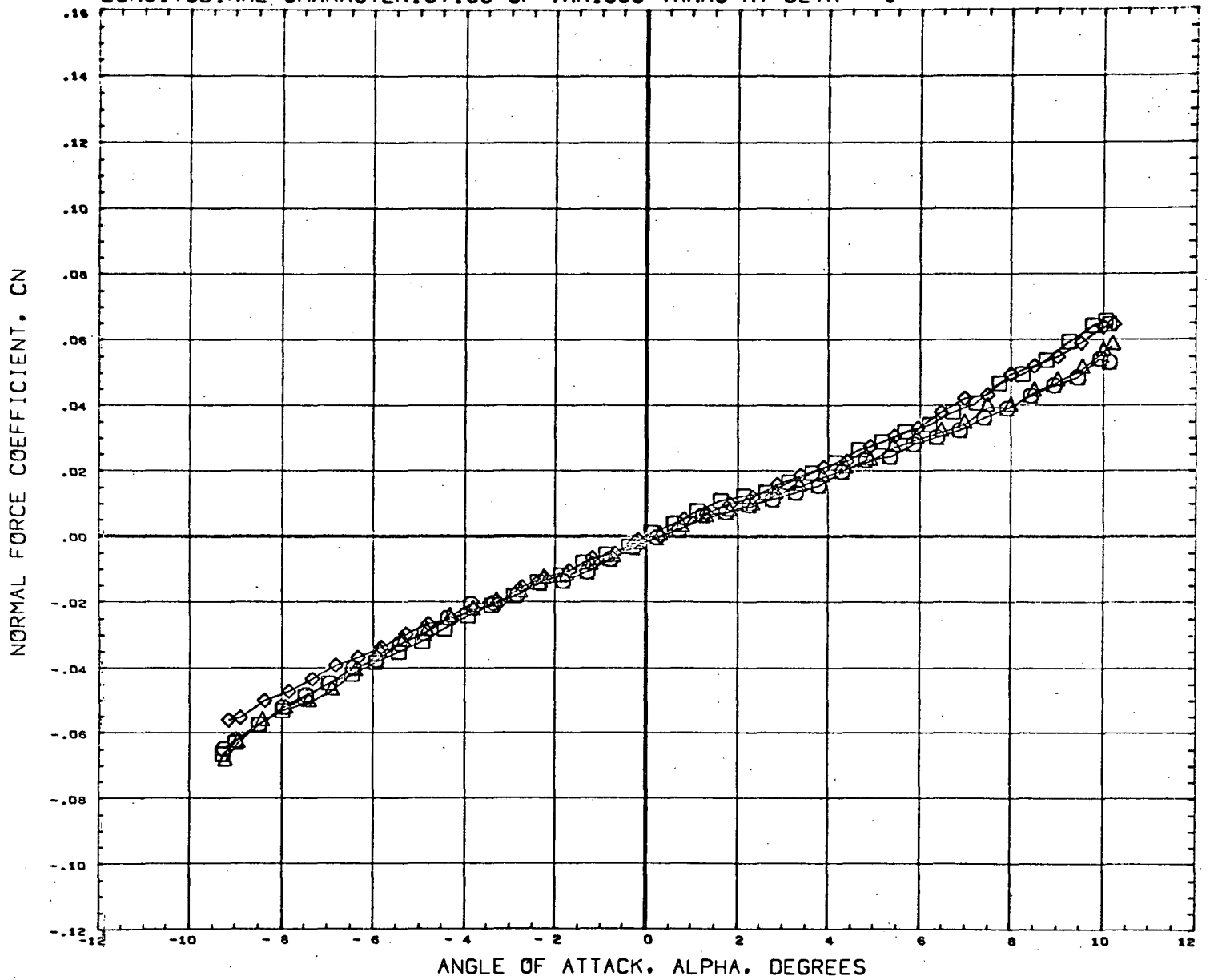
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	557.0004 IN.
YMRP	0.0000 IN.
ZMRP	200.0004 IN.
SCALE	0.0060

MACH .58

PAGE 202

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

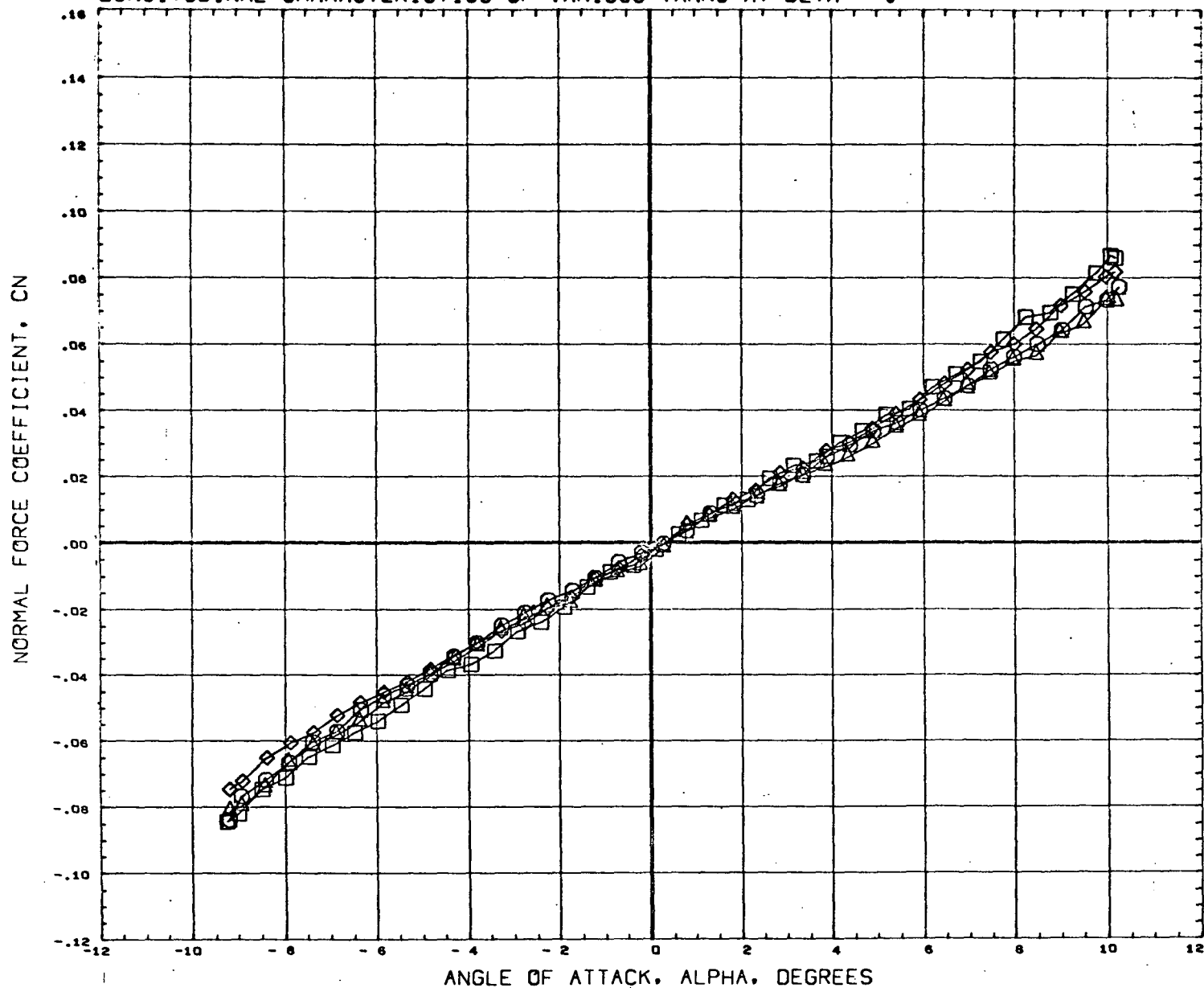
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 203

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	MDAC S-222 TANK ALONE T1
(C07602)	MDAC S-222 TANK ALONE T2
(C07603)	MDAC S-222 TANK ALONE T3
(C07604)	MDAC S-222 TANK ALONE T4

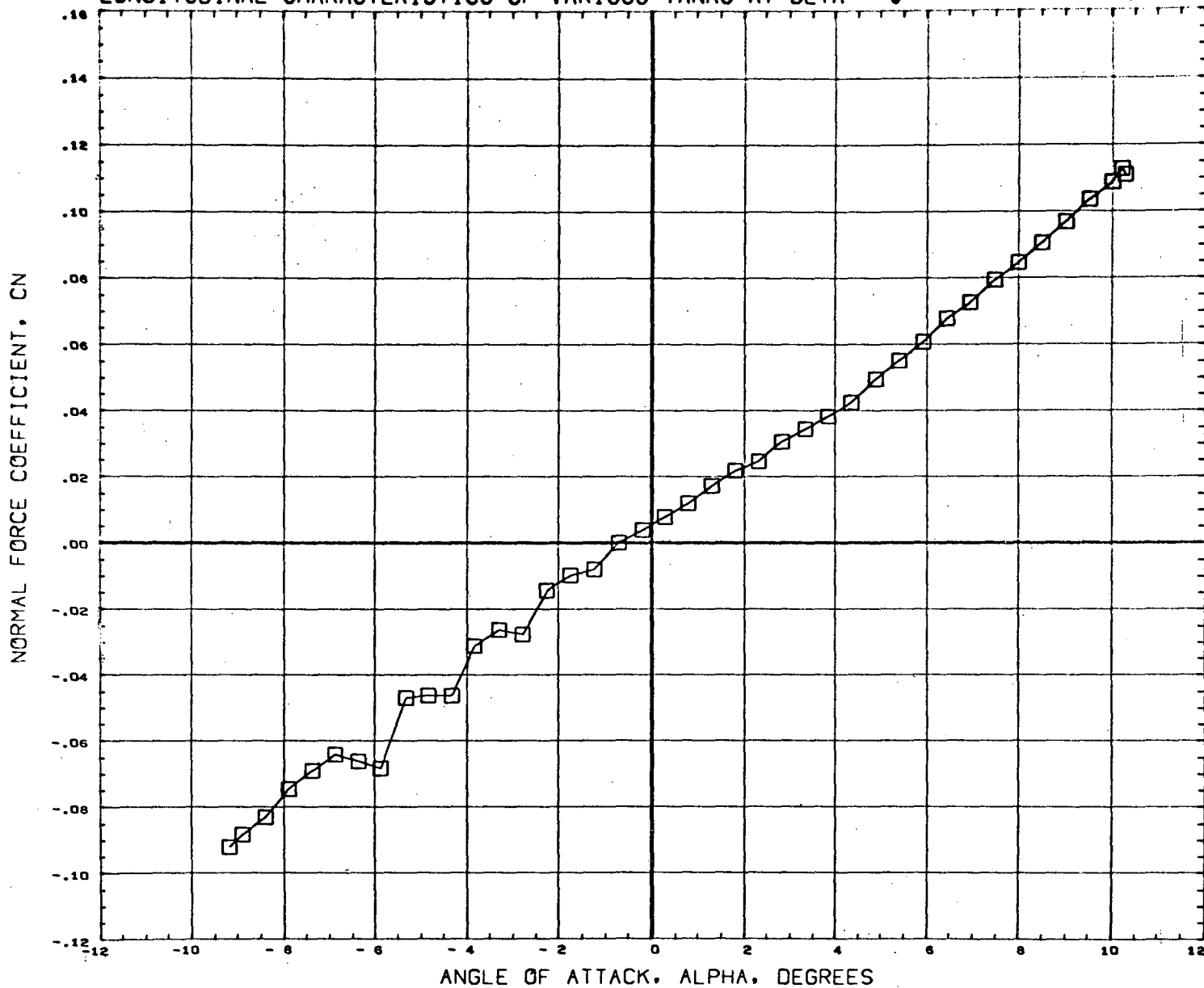
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 204

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

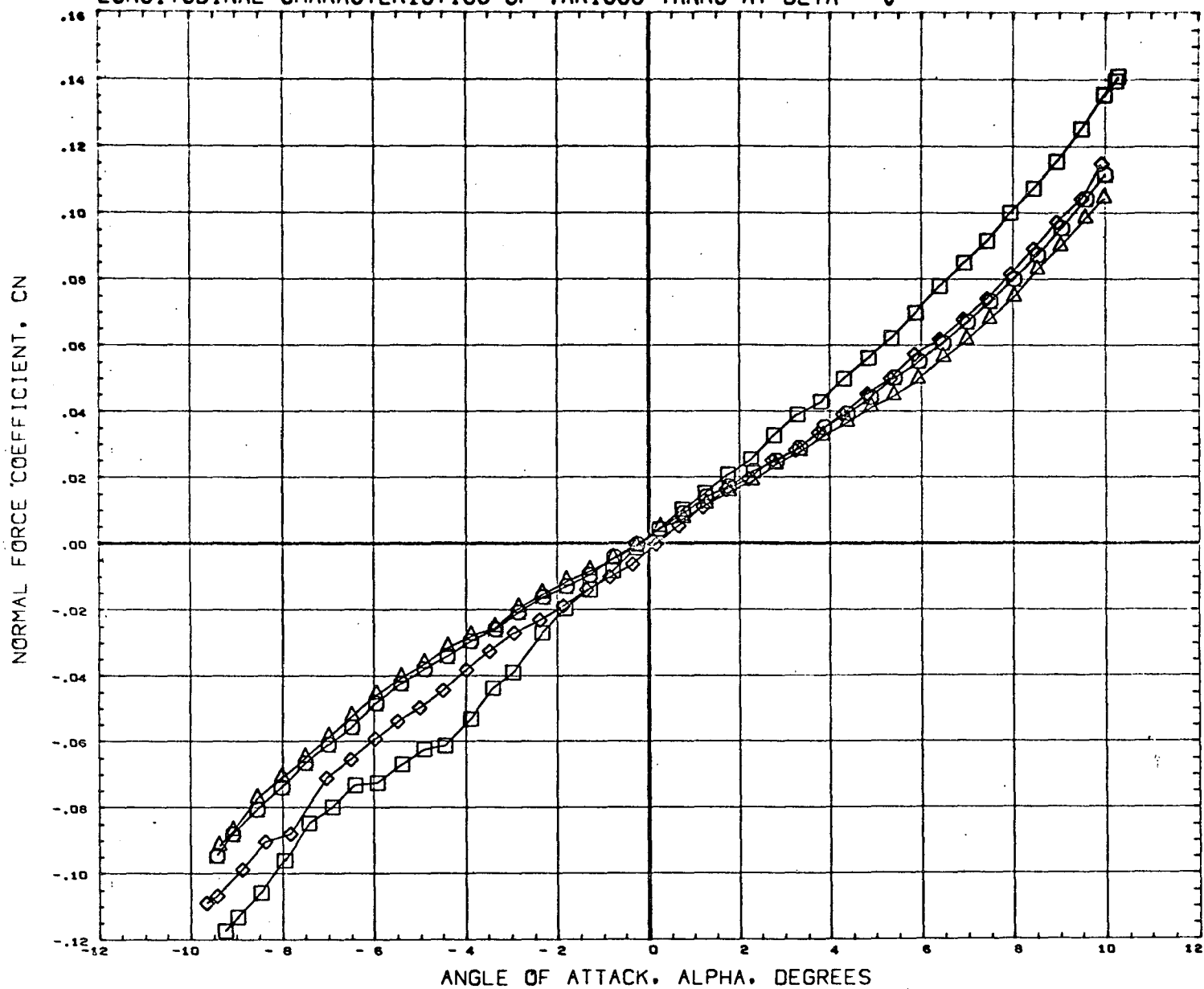
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 205

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

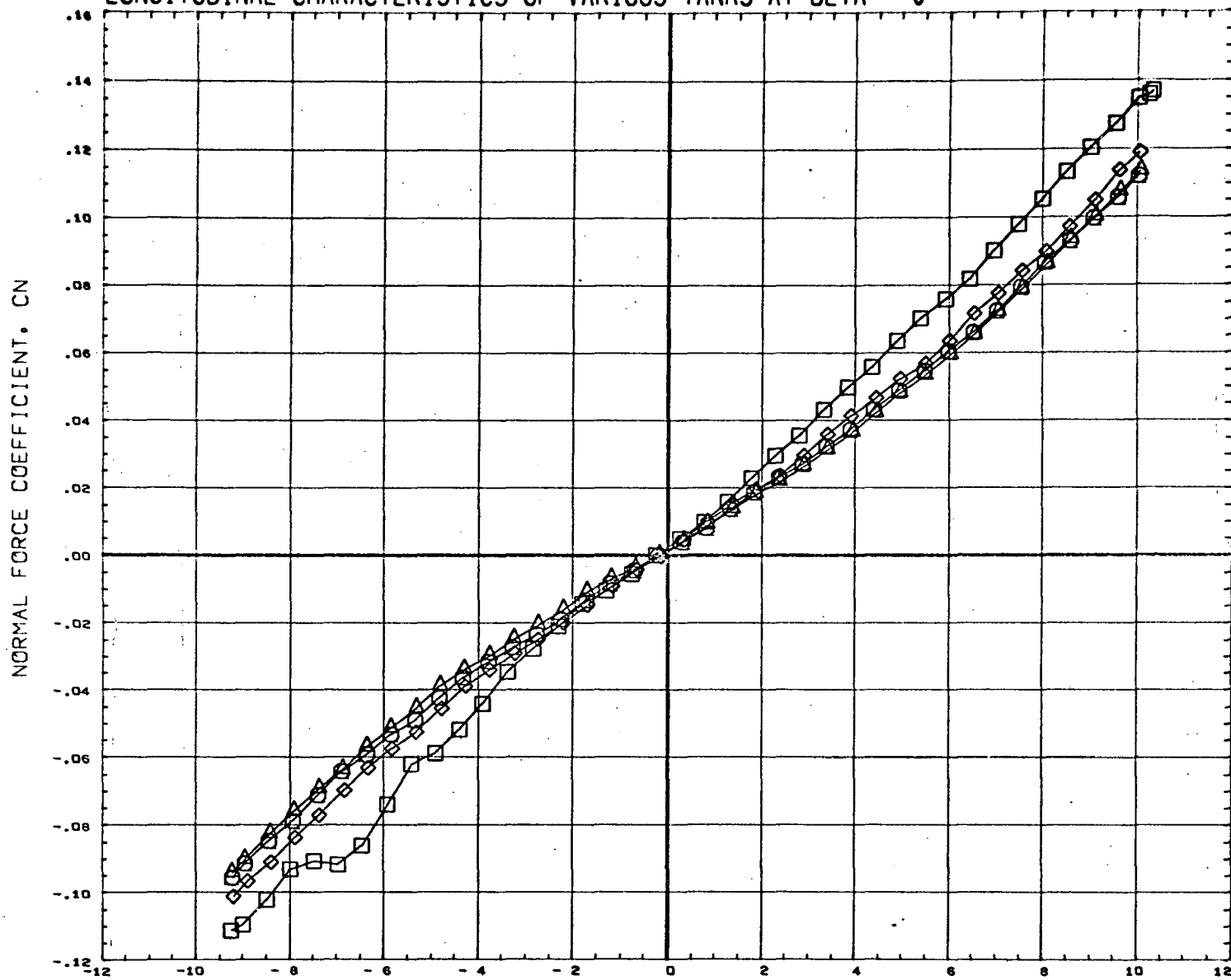
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 206

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

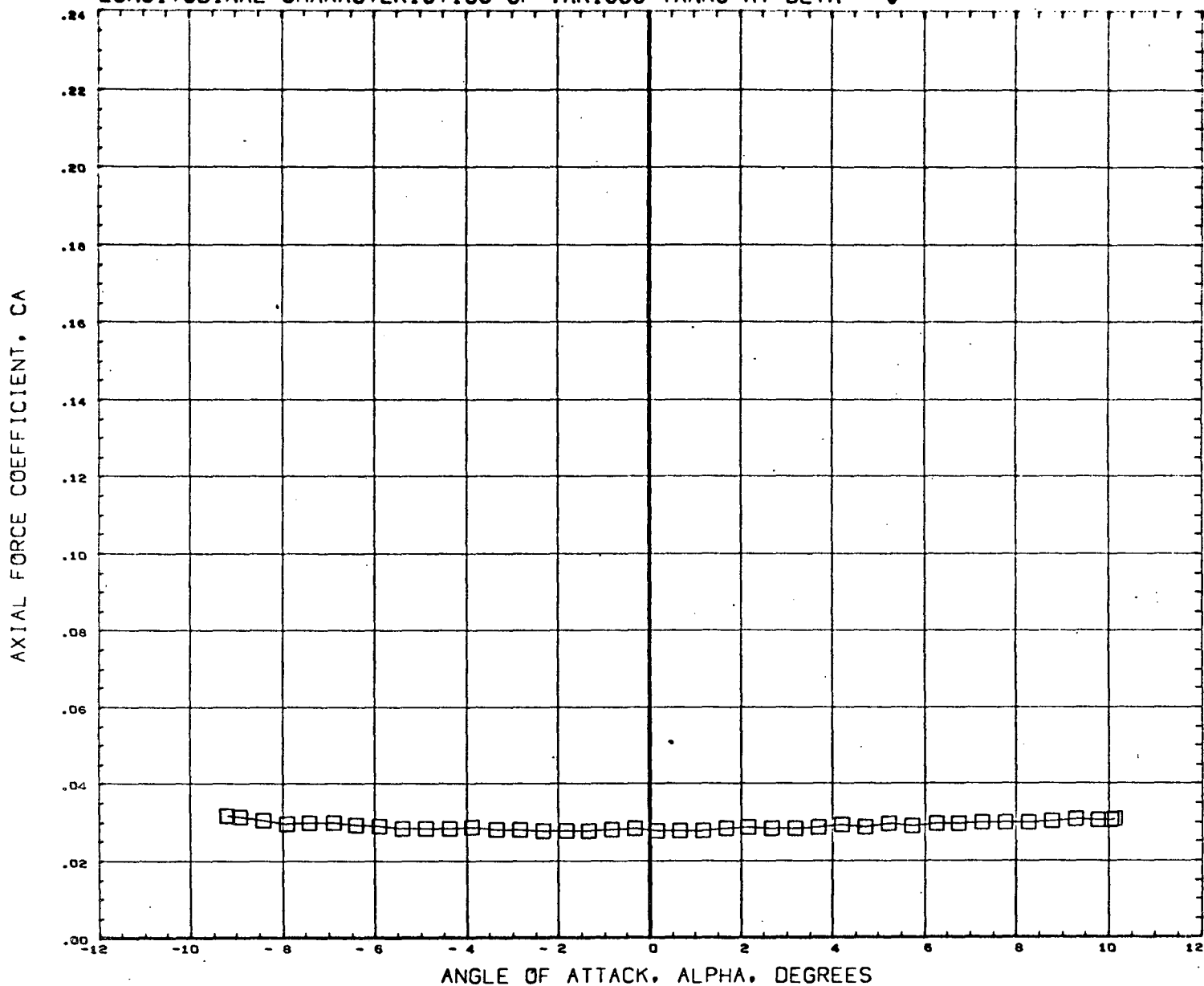
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMHP	557.0004	IN.
YMHP	0.0000	IN.
ZMHP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 207

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

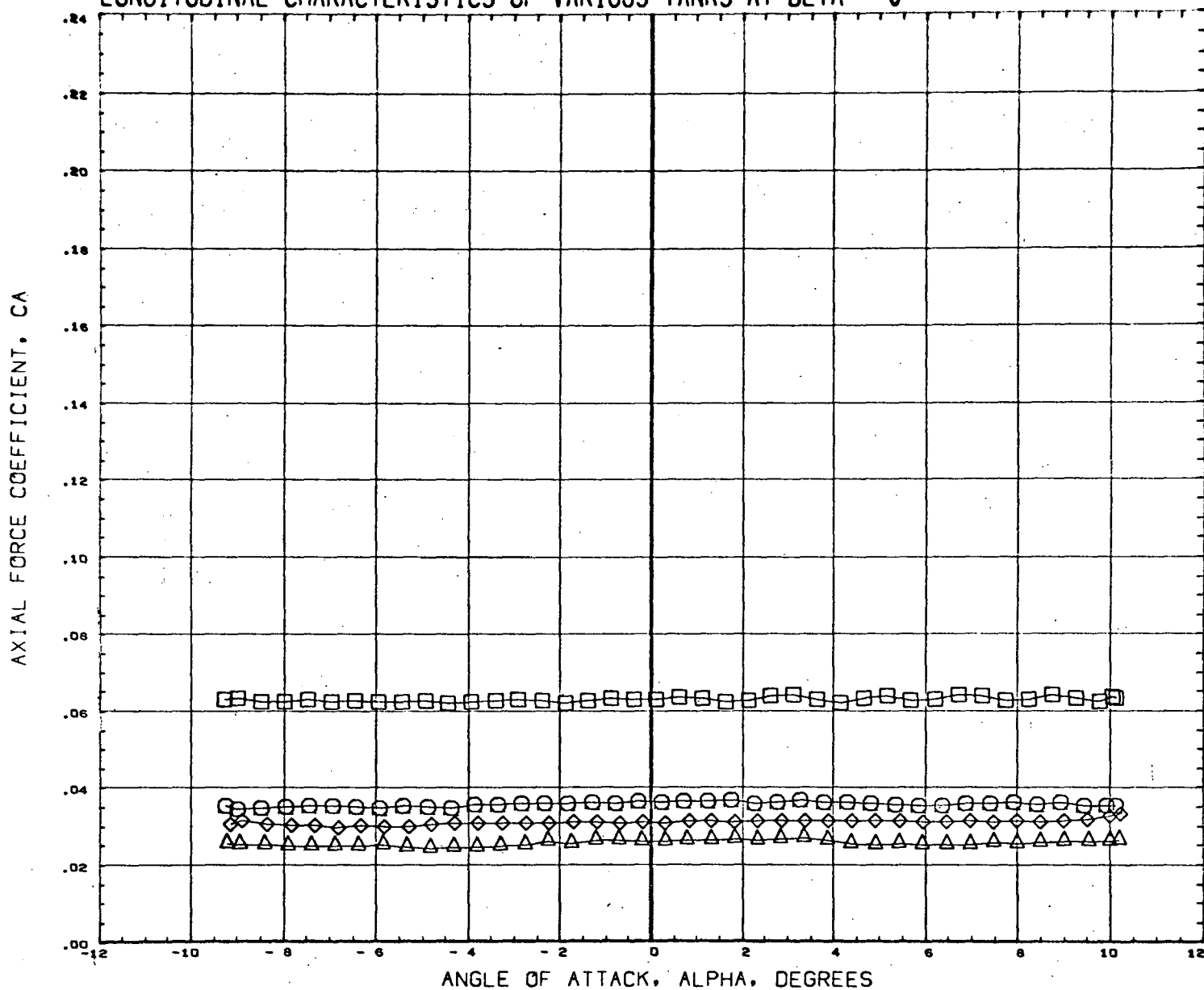
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .58

PAGE 208

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

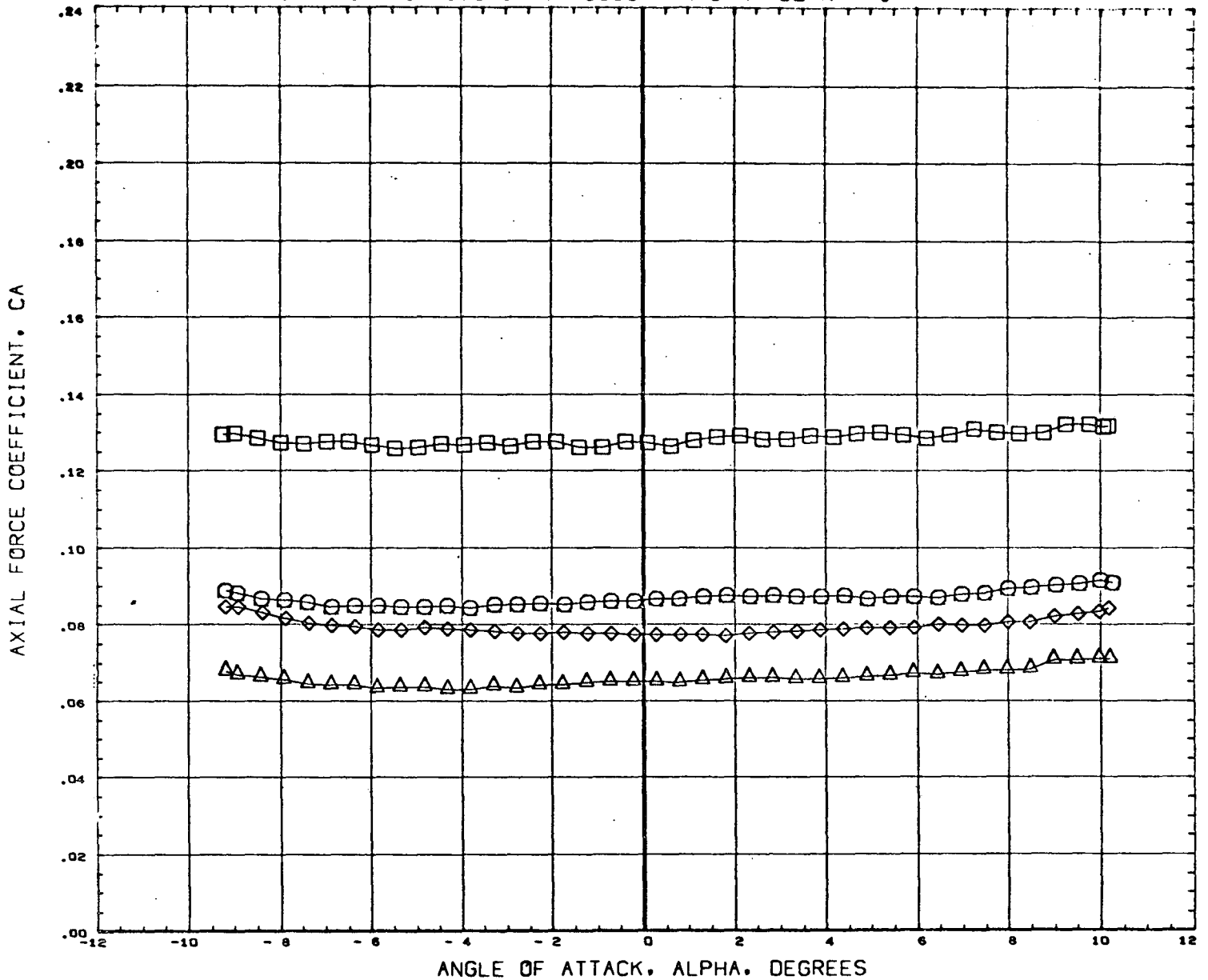
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 209

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

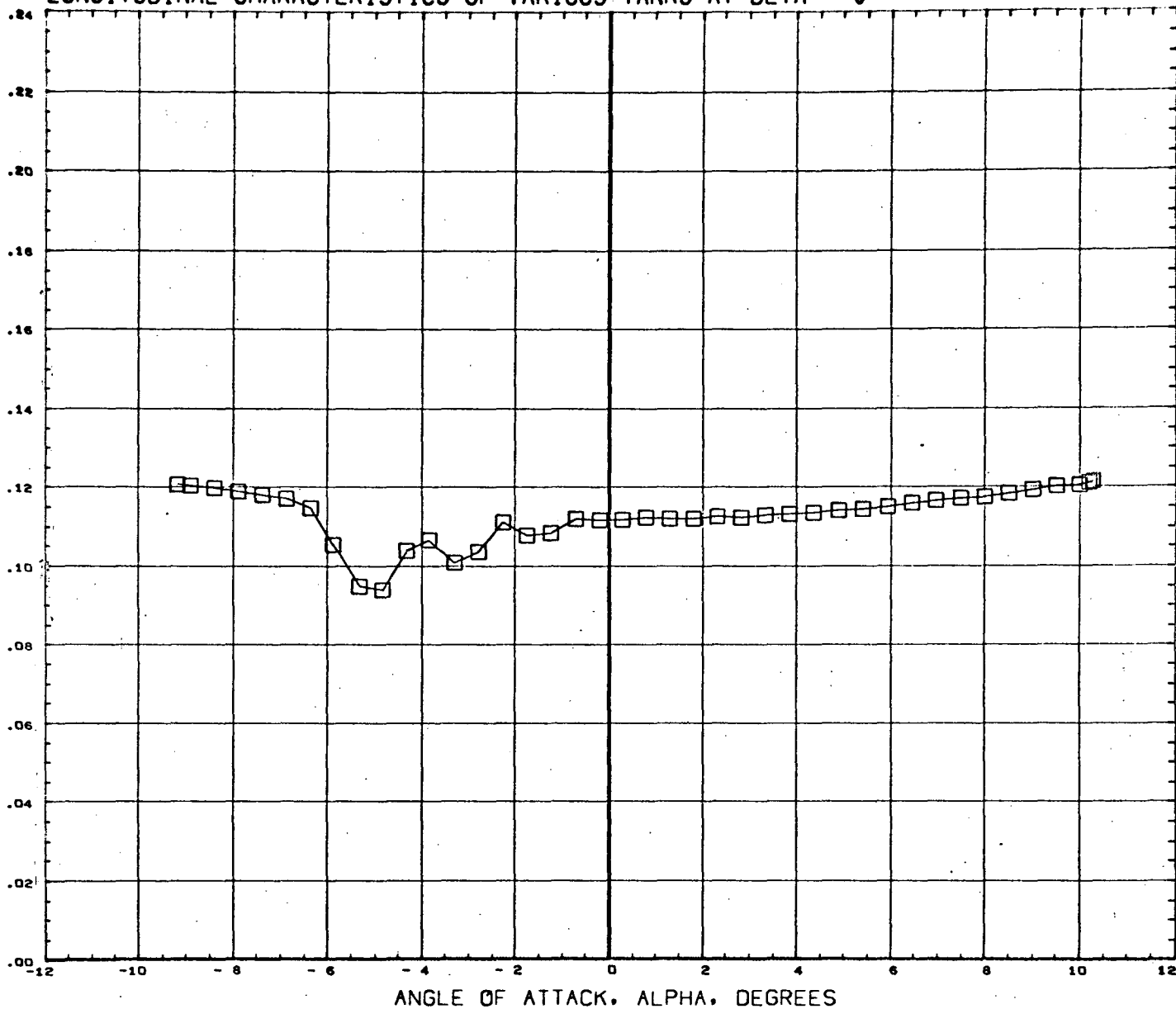
MACH

1.10

PAGE 210

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

AXIAL FORCE COEFFICIENT, CA



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	□	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	□	MDAC S-222 TANK ALONE T4

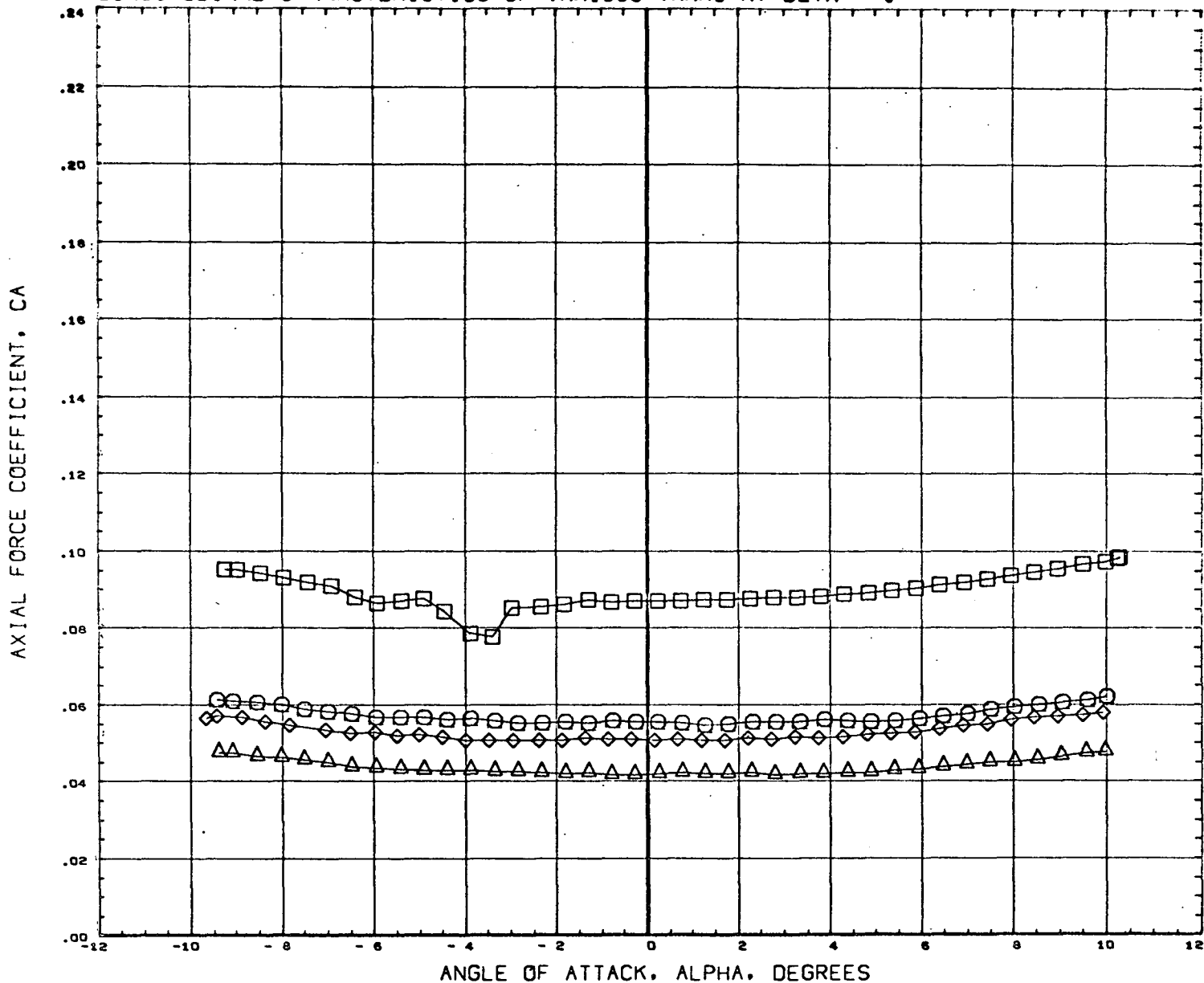
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 211

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	◇	MDAC S-222 TANK ALONE T2
(CD7603)	△	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

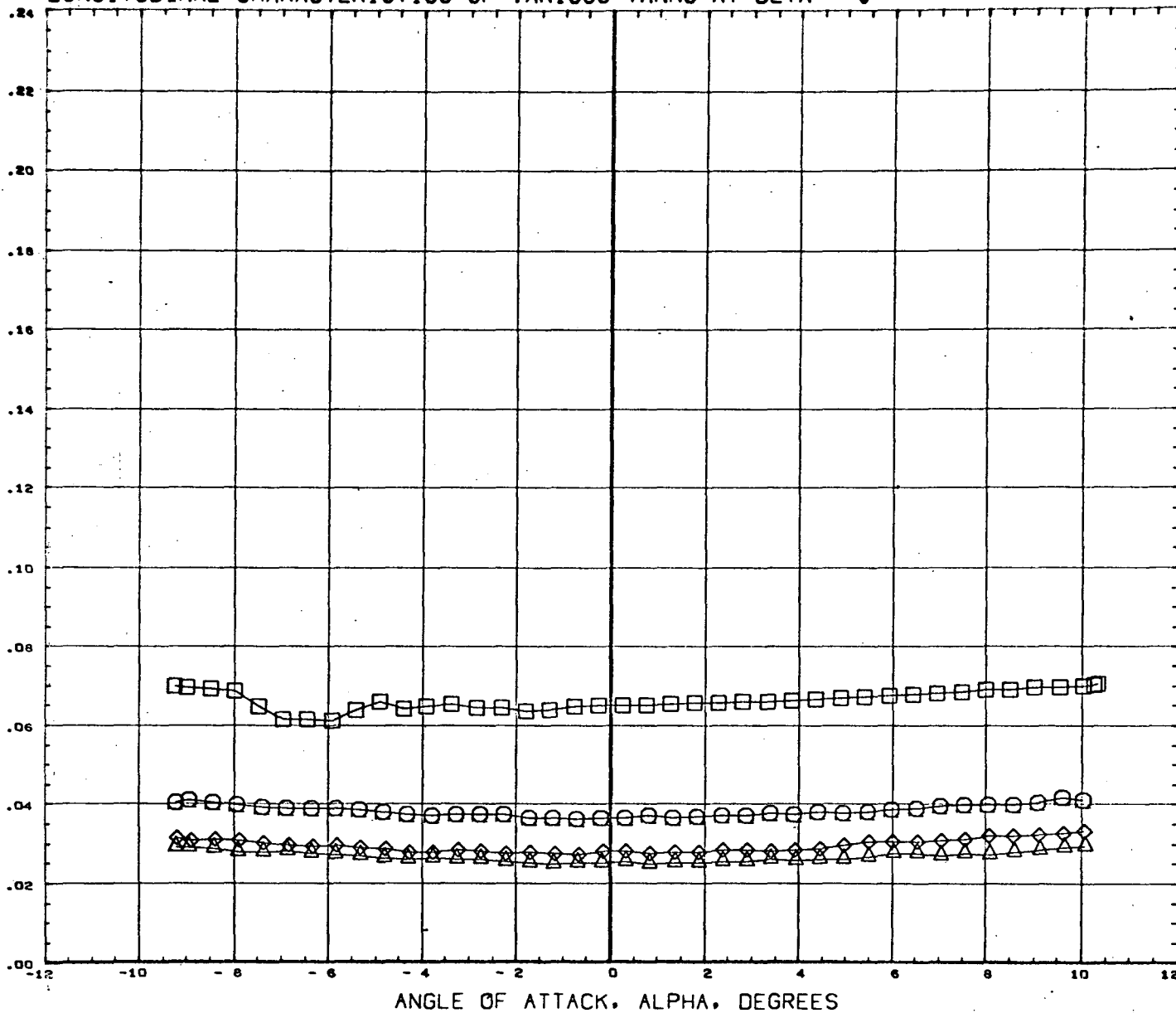
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 212

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

AXIAL FORCE COEFFICIENT, CA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601) □	MDAC S-222 TANK ALONE T1
(CD7602) ○	MDAC S-222 TANK ALONE T2
(CD7603) ◇	MDAC S-222 TANK ALONE T3
(CD7604) △	MDAC S-222 TANK ALONE T4

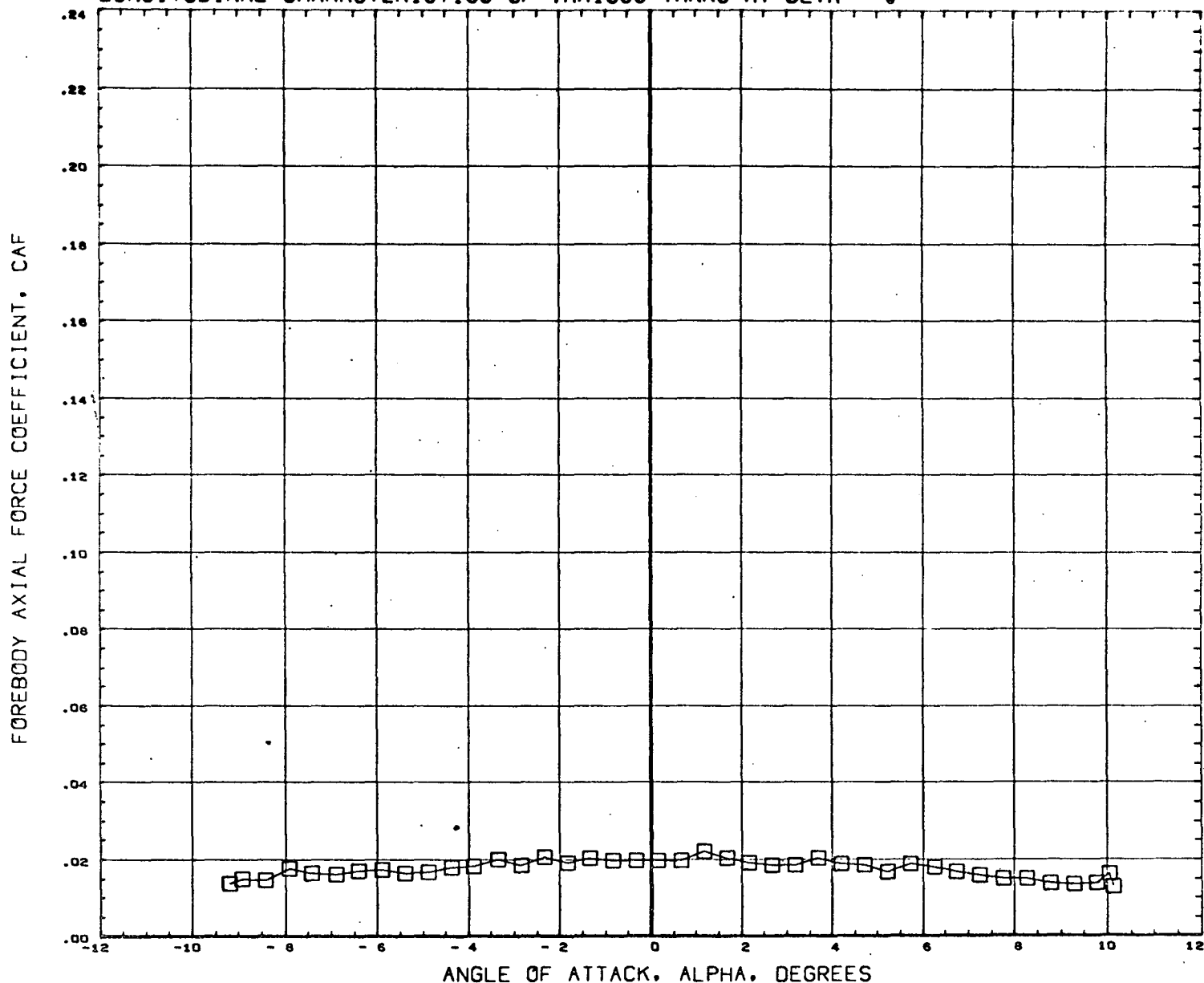
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 213

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

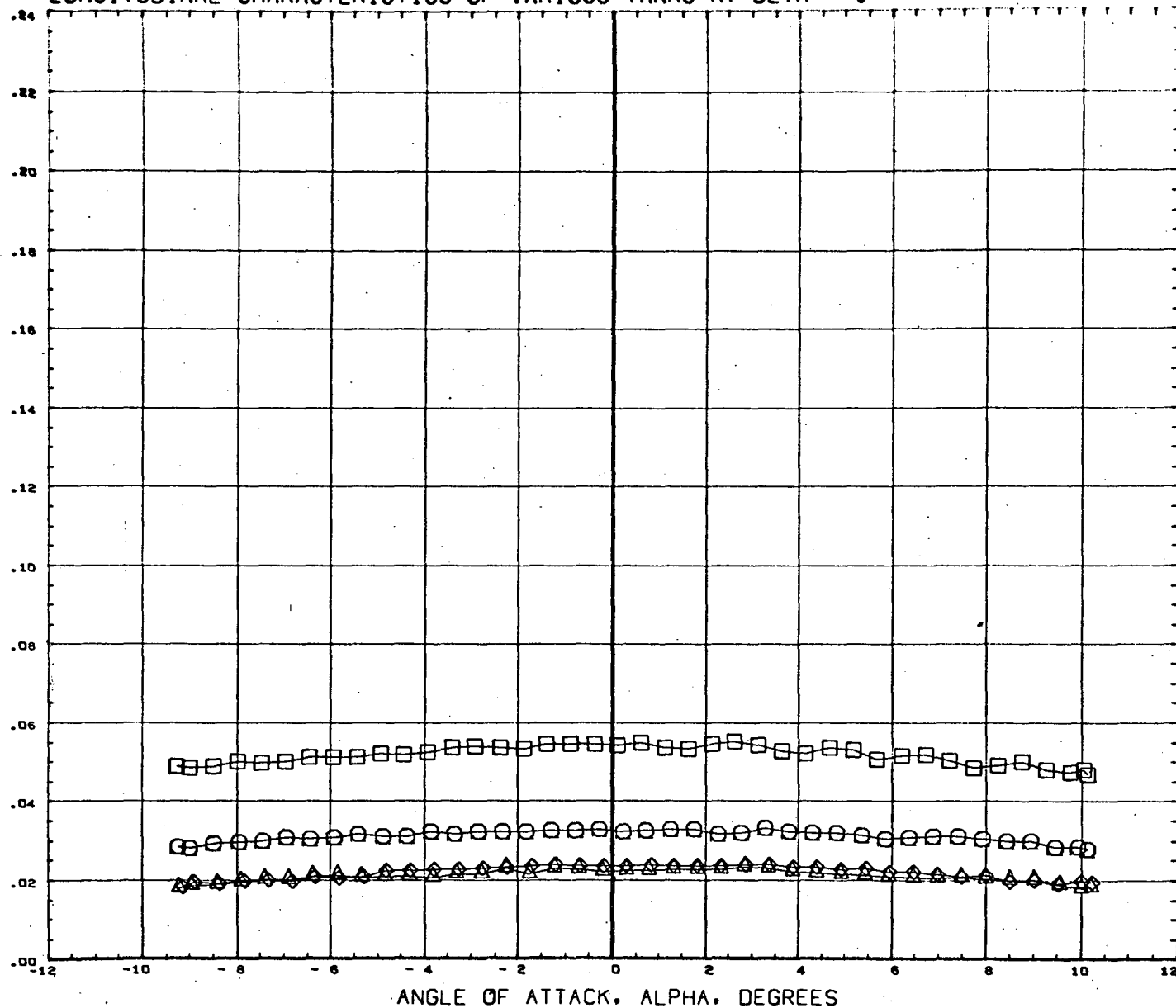
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH. .58

PAGE 214

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

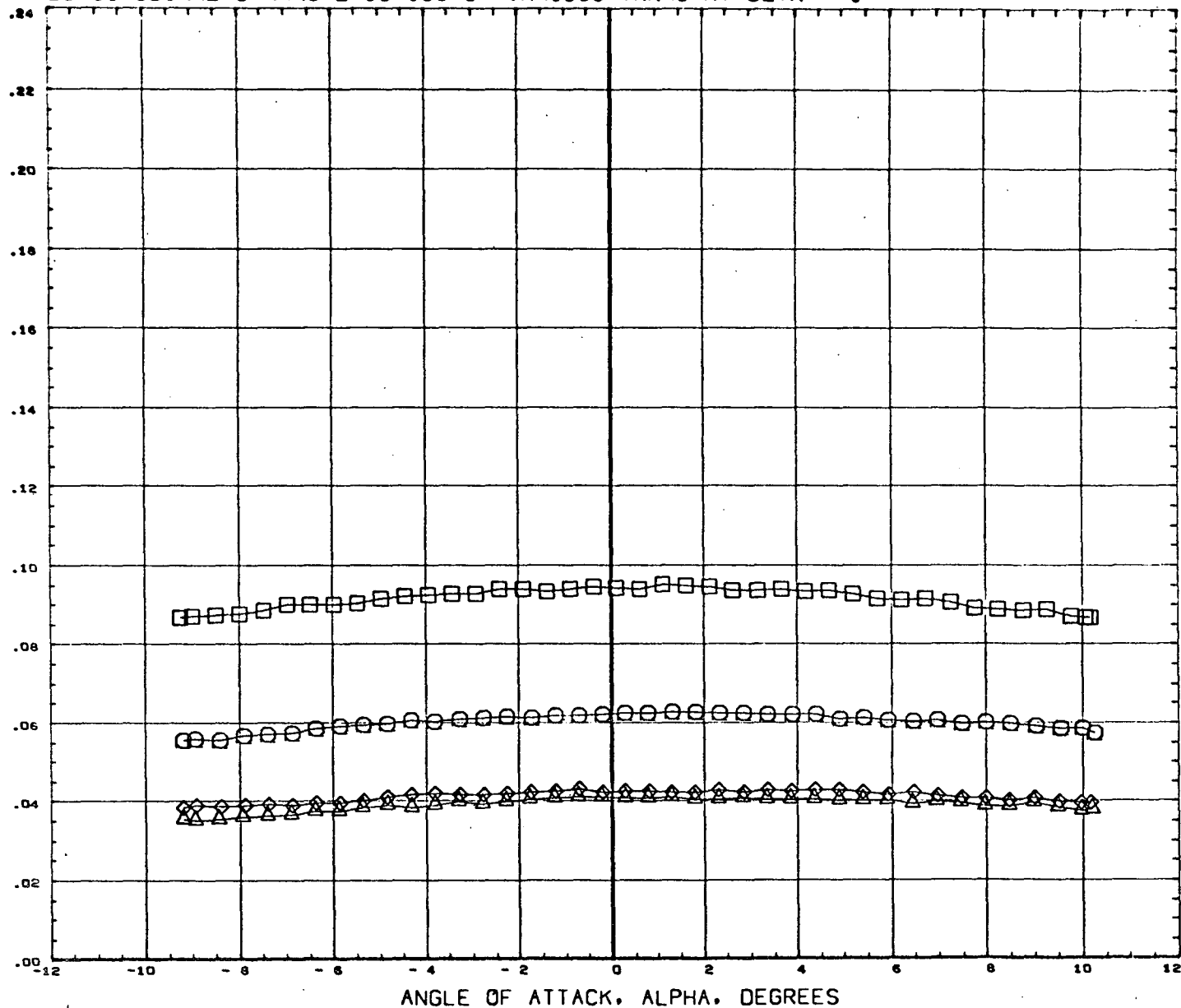
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 215

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

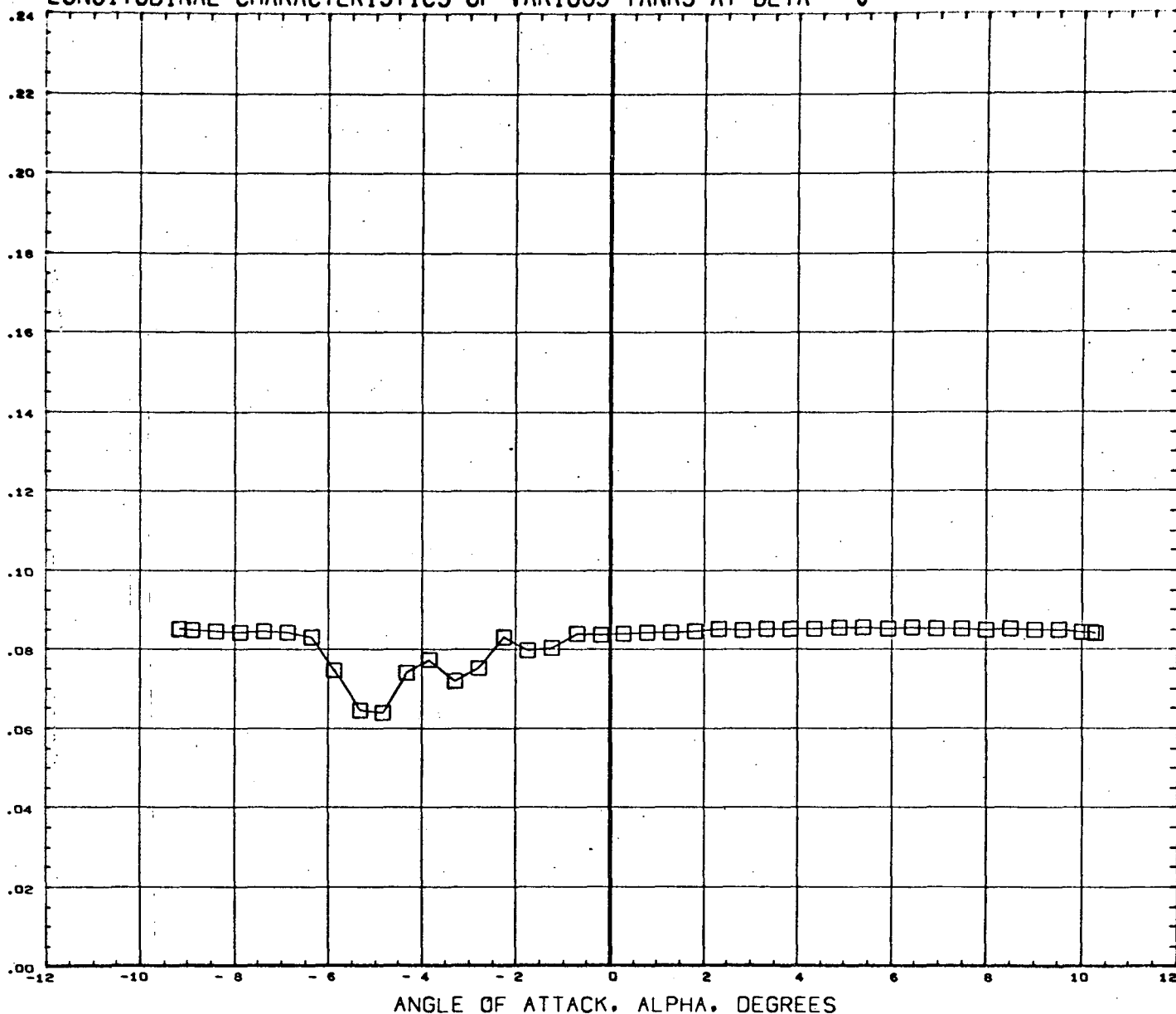
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 216

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07604)	MDAC S-222 TANK ALONE T4

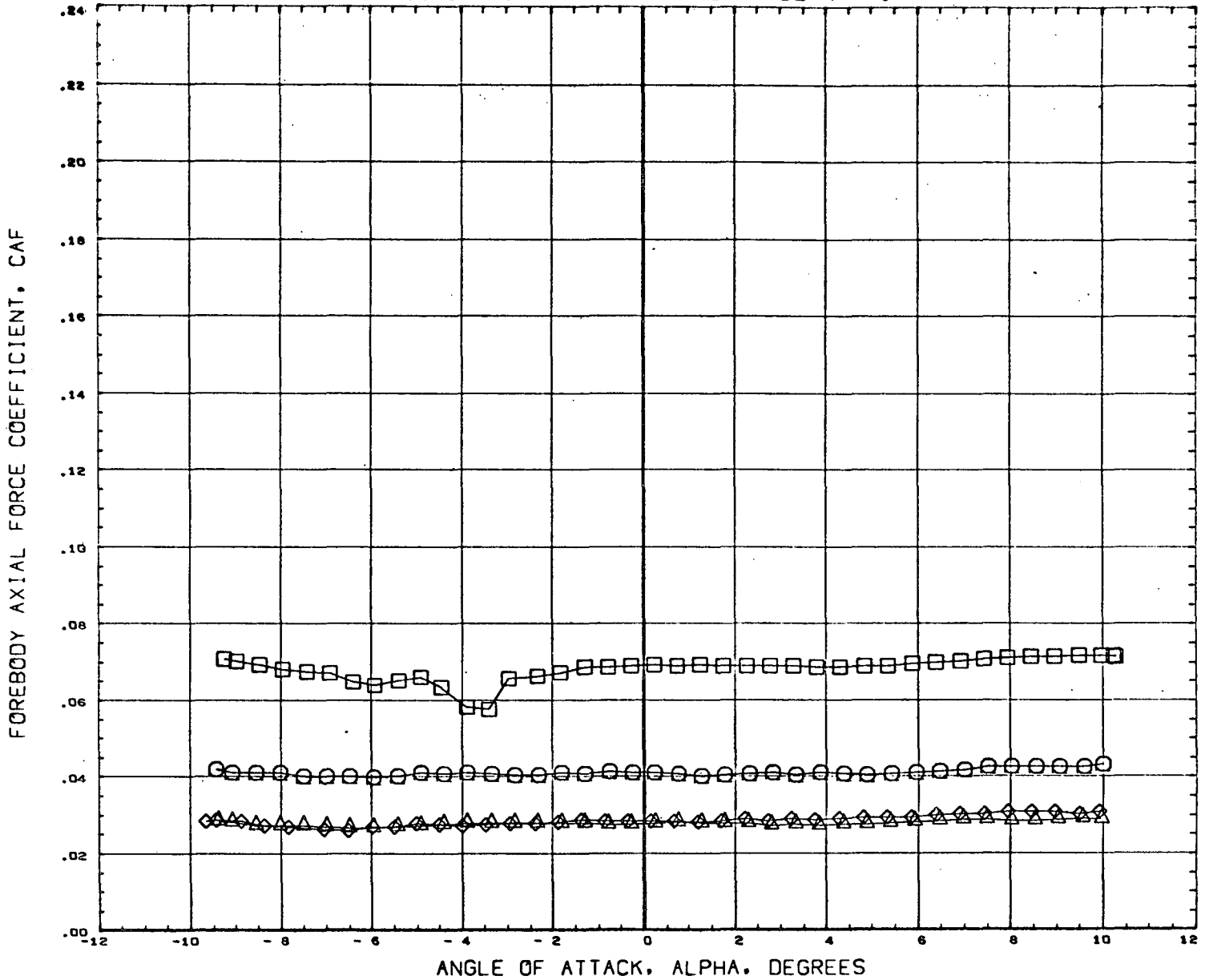
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMHP	557.0004	IN.
YMHP	0.0000	IN.
ZMHP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 217

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601) ○	MDAC S-222 TANK ALONE T1
(CD7602) △	MDAC S-222 TANK ALONE T2
(CD7603) ◇	MDAC S-222 TANK ALONE T3
(CD7604) □	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

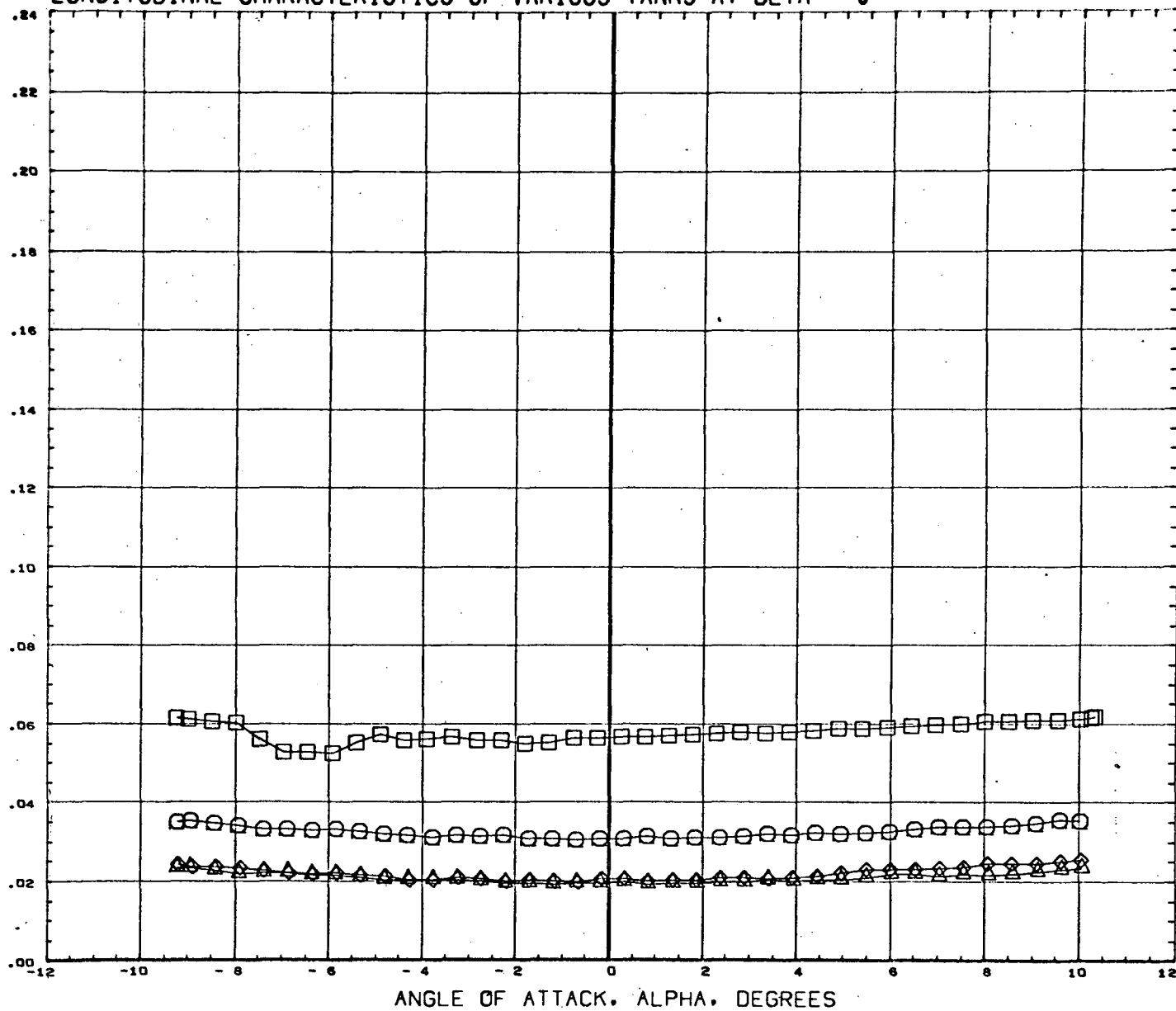
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 218

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	□	MDAC S-222 TANK ALONE T1
(CD7602)	○	MDAC S-222 TANK ALONE T2
(CD7603)	△	MDAC S-222 TANK ALONE T3
(CD7604)	◇	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

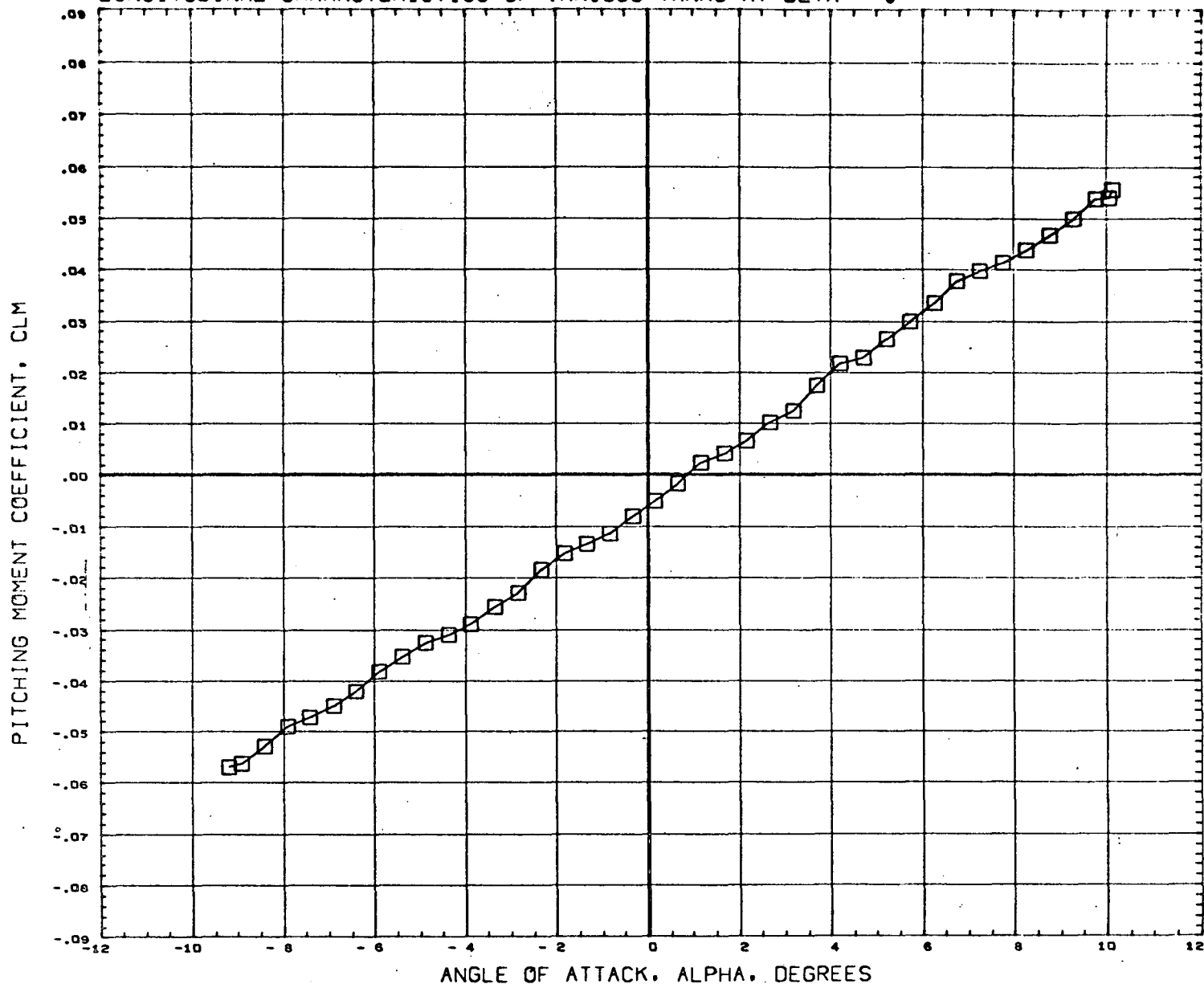
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 219

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

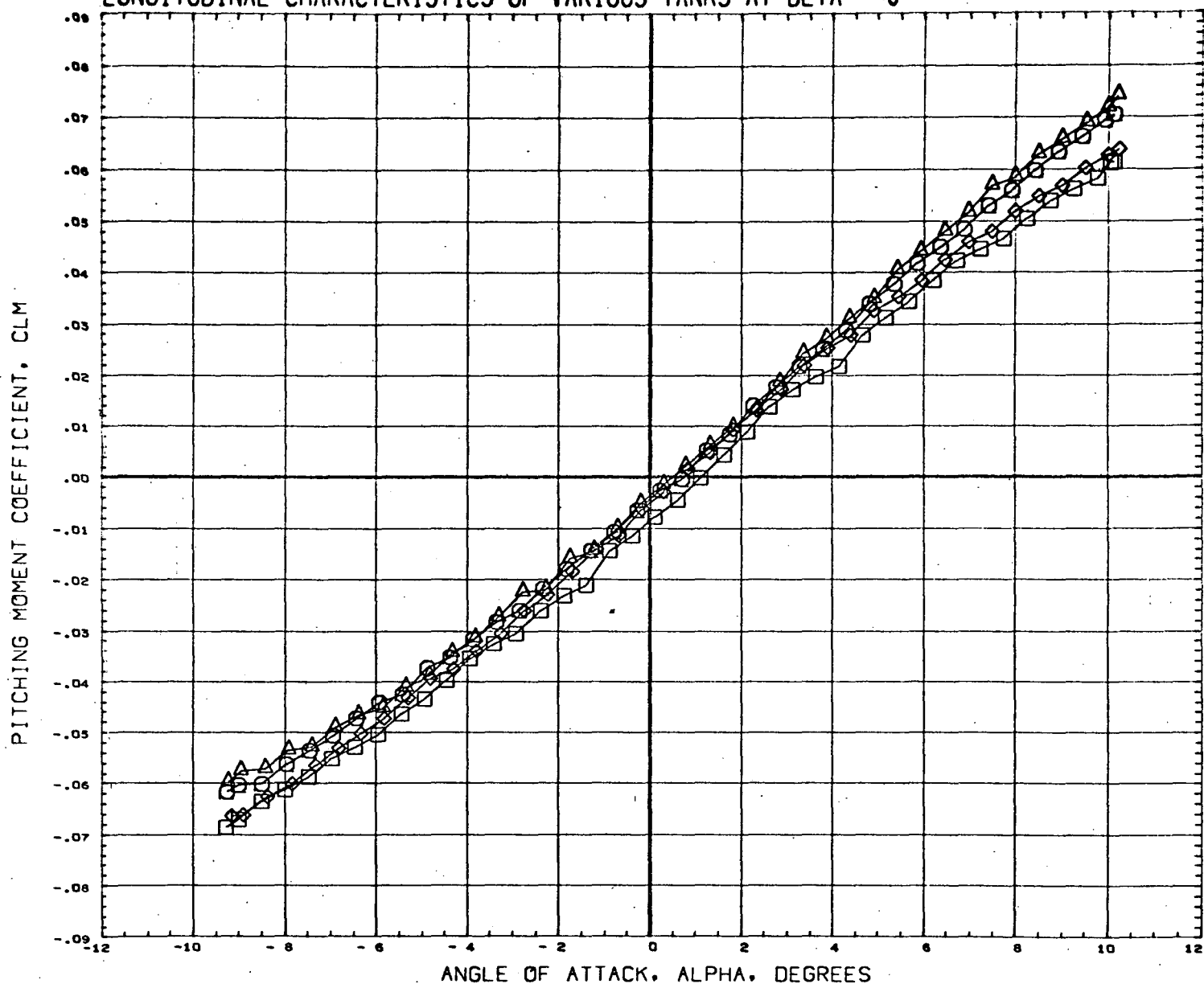
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	557.0004	IN.
YMRF	0.0000	IN.
ZMRF	200.0004	IN.
SCALE	0.0060	

MACH .58

PAGE 220

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	○	MDAC S-222 TANK ALONE T1
(C07602)	△	MDAC S-222 TANK ALONE T2
(C07603)	◇	MDAC S-222 TANK ALONE T3
(C07604)	□	MDAC S-222 TANK ALONE T4

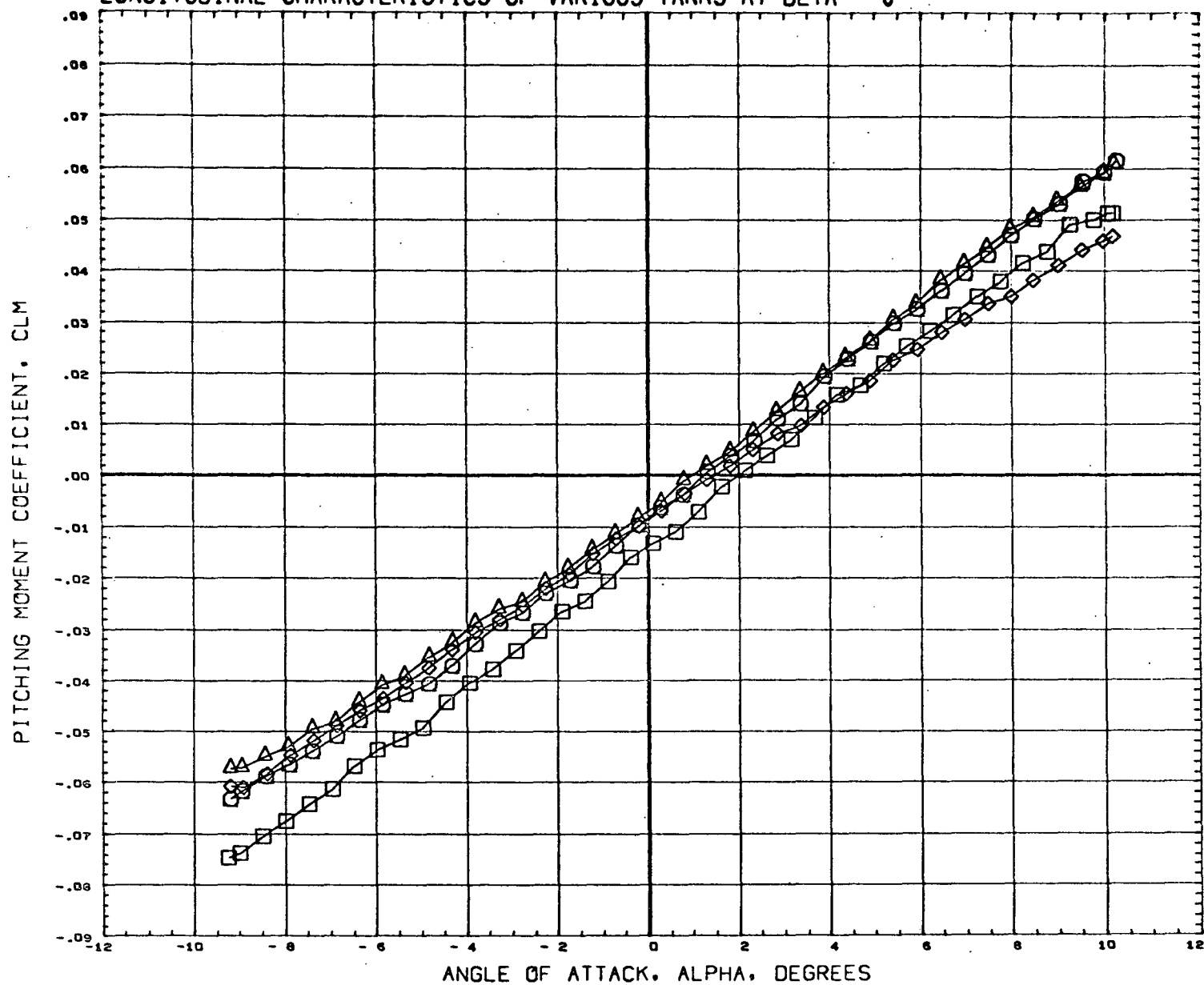
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 221

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	MDAC S-222 TANK ALONE T1
(C07602)	MDAC S-222 TANK ALONE T2
(C07603)	MDAC S-222 TANK ALONE T3
(C07604)	MDAC S-222 TANK ALONE T4

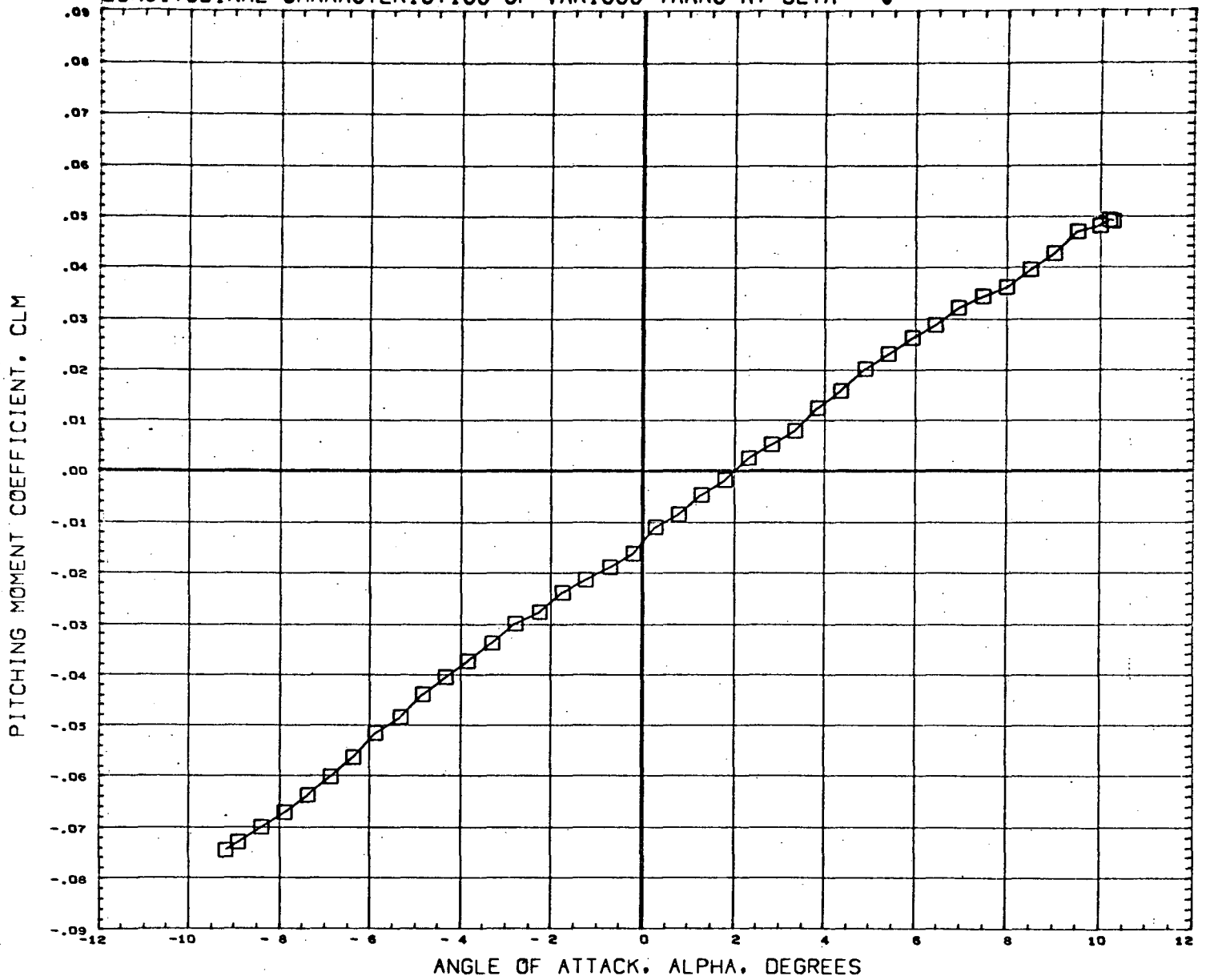
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 222

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

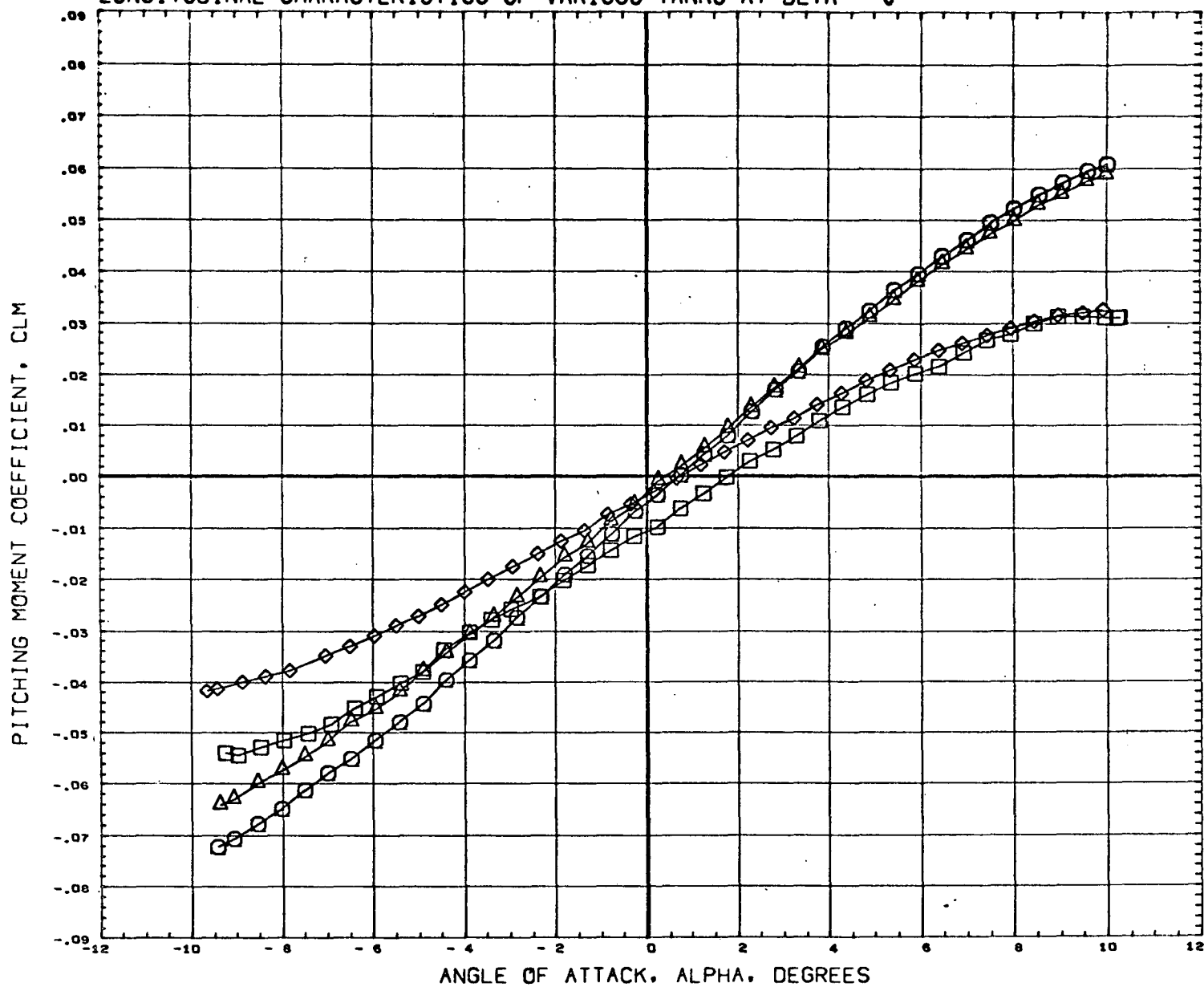
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 223

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

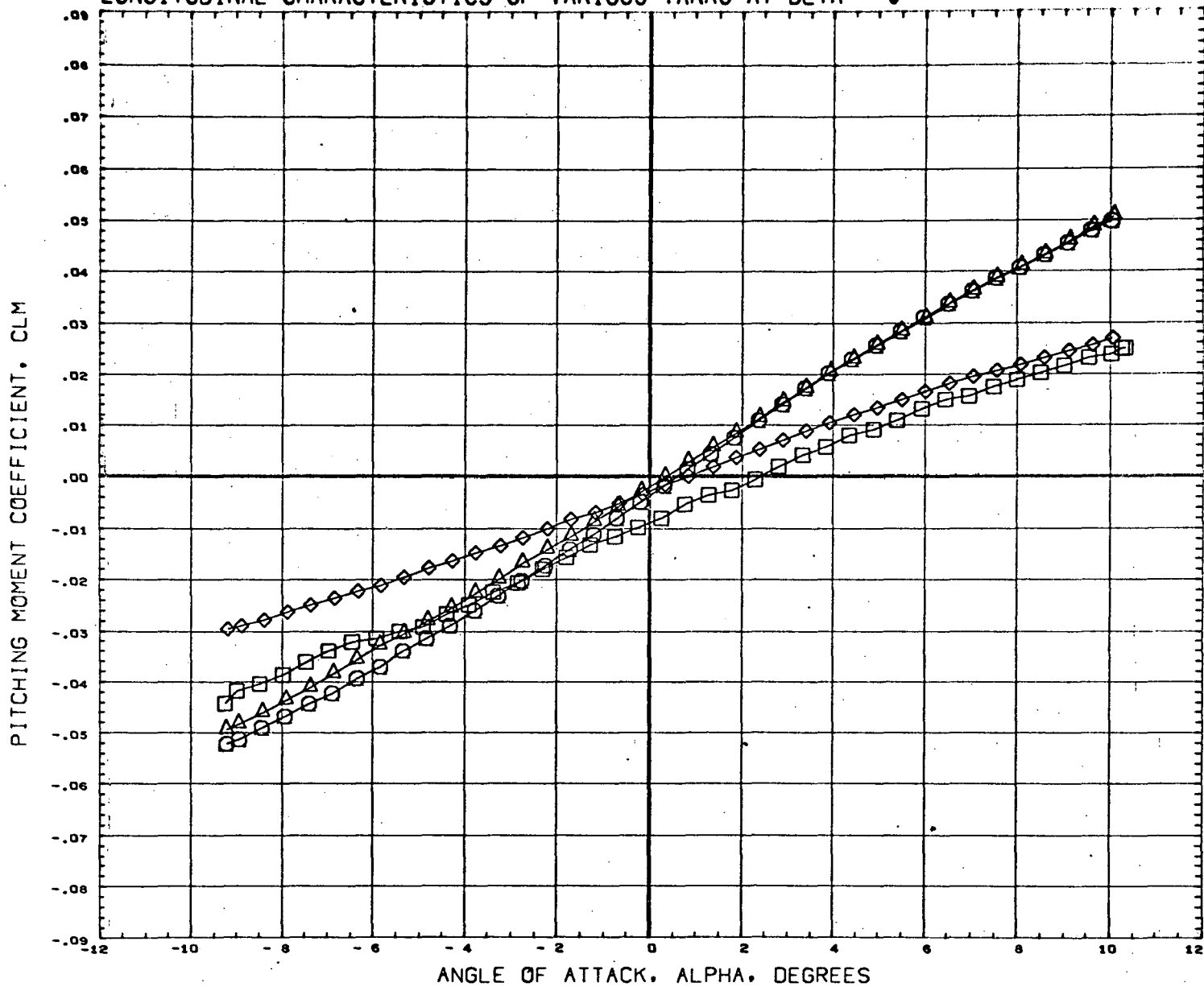
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

2.20

PAGE 224

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

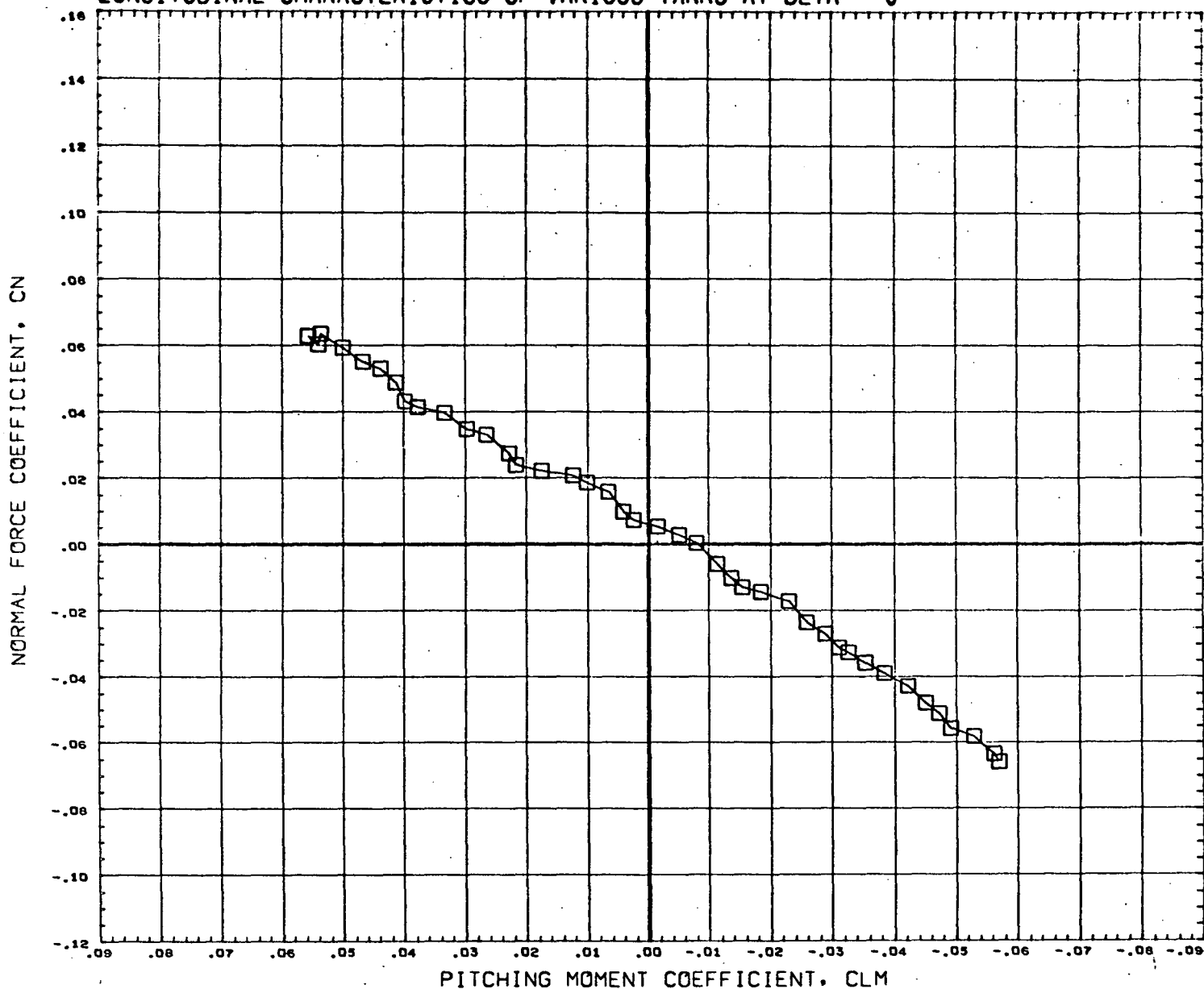
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	557.0004	IN.
YMRF	0.0000	IN.
ZMRF	200.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 225

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

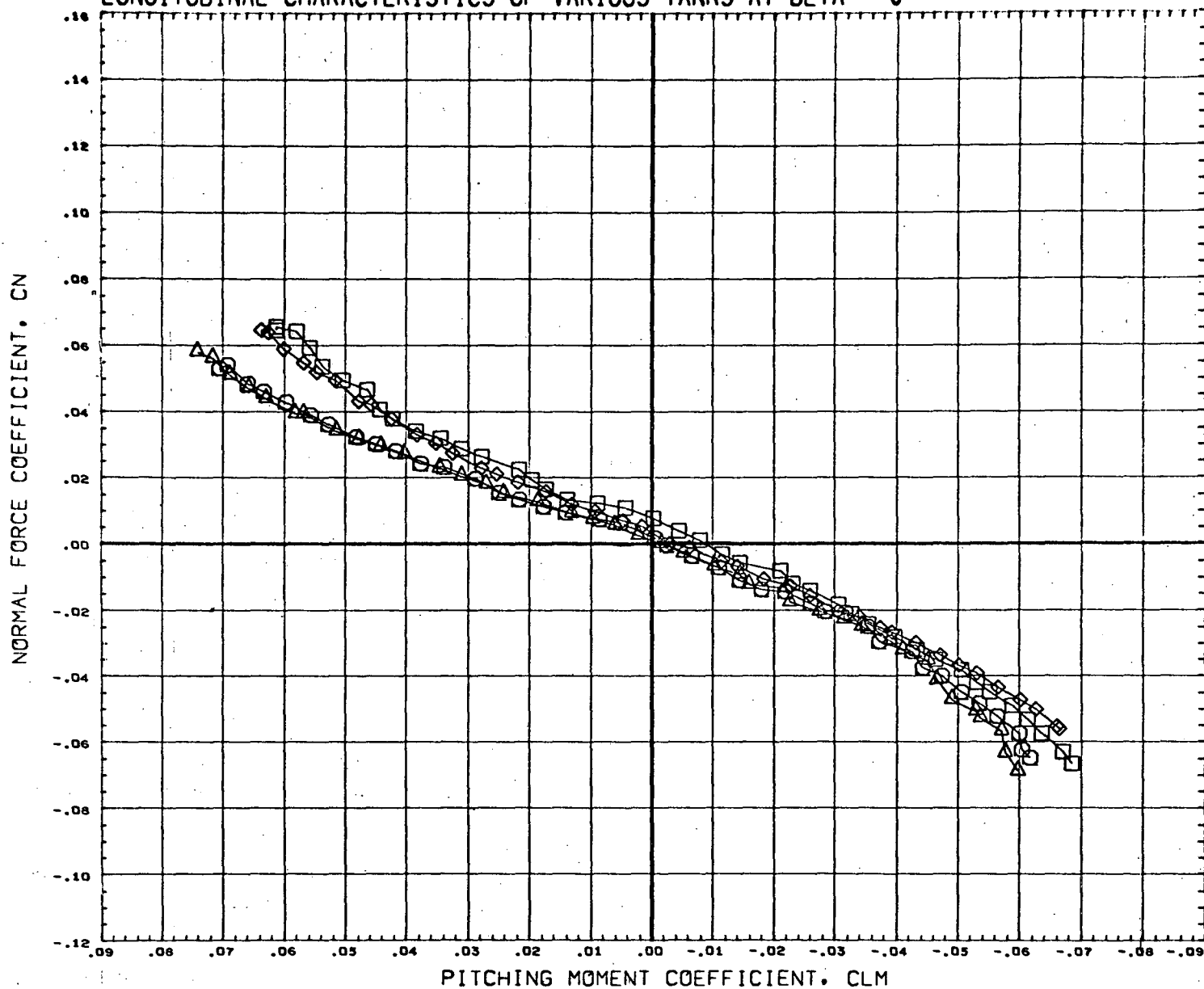
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

.58

PAGE 226

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

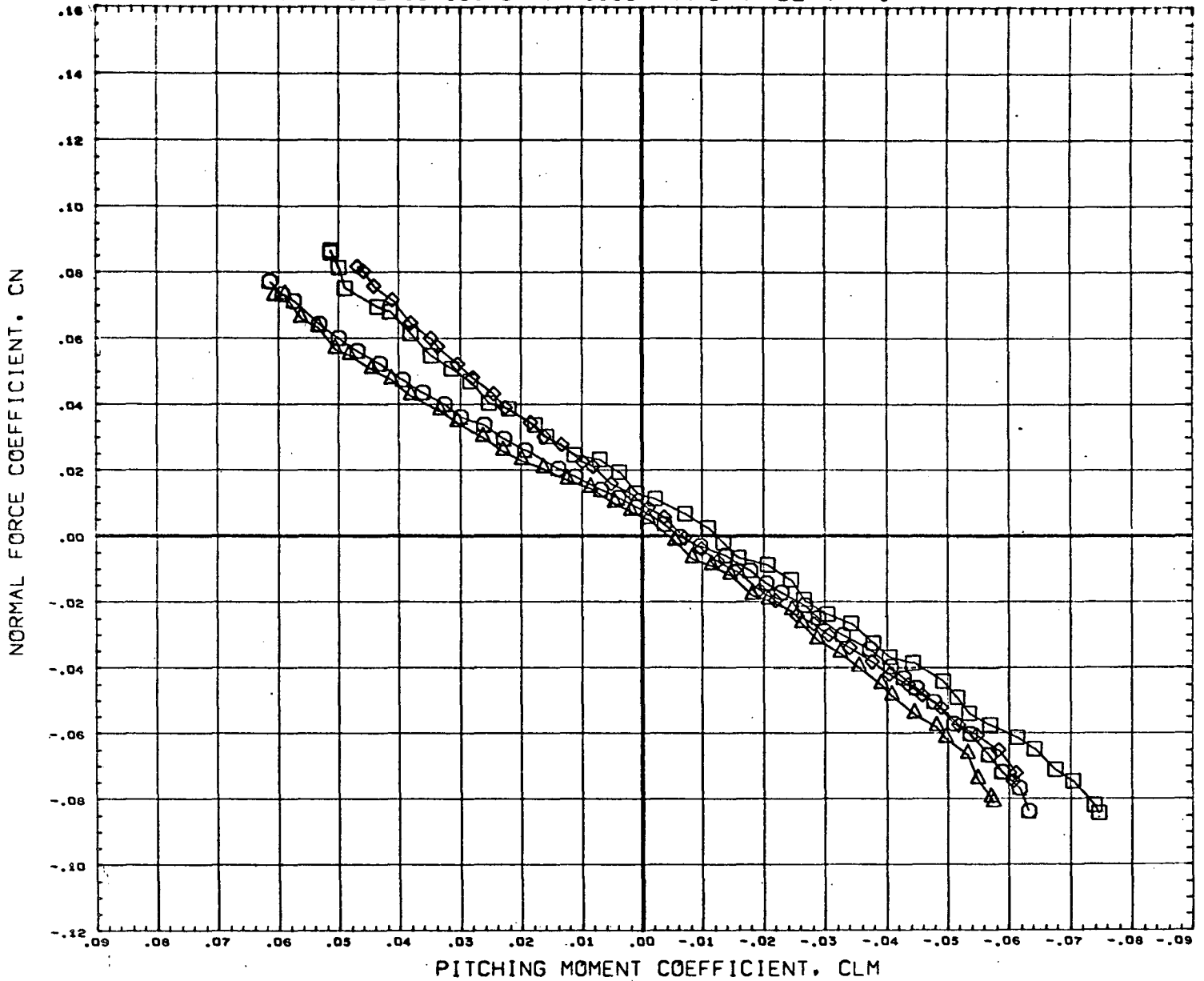
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 227

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

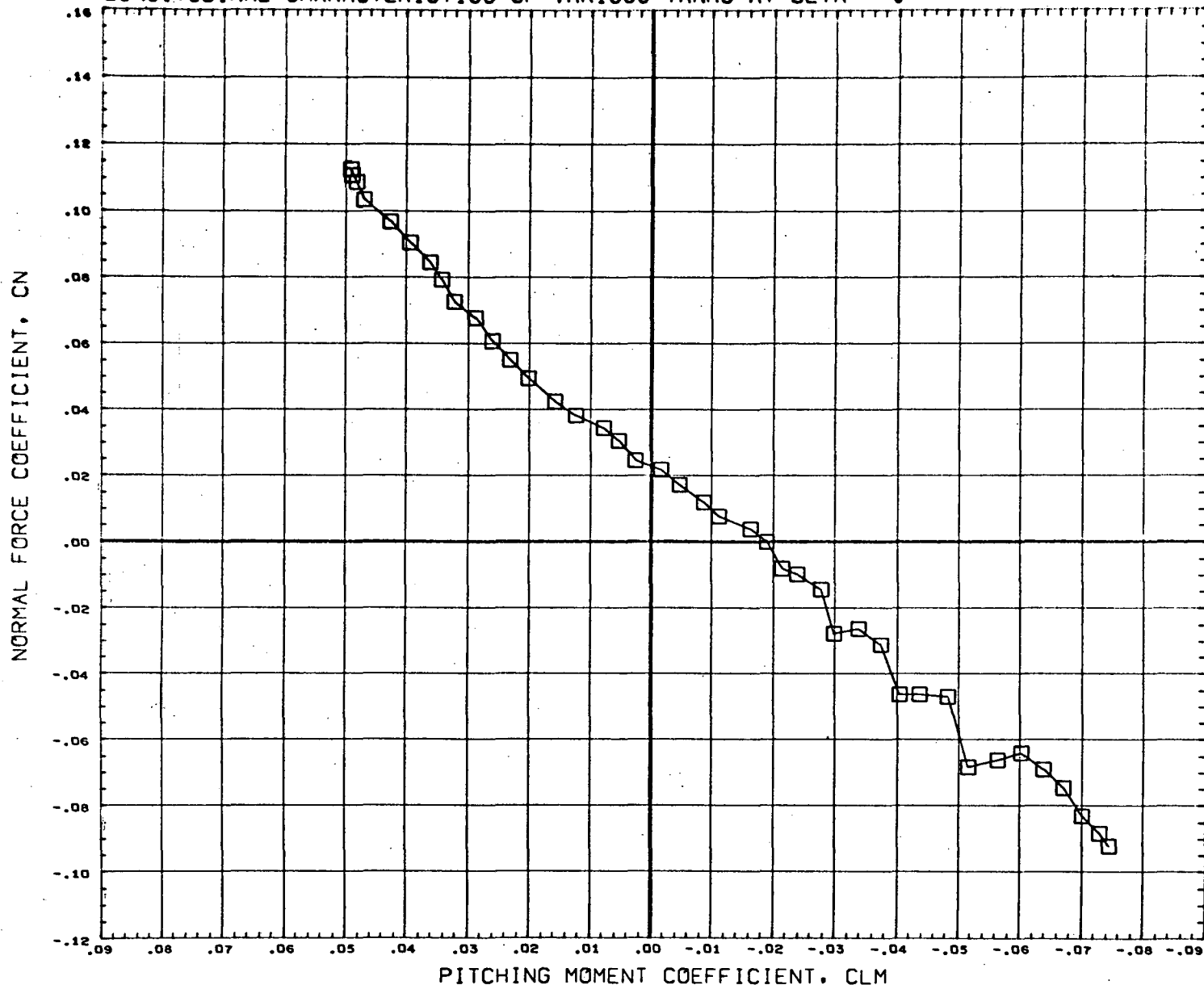
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

1.10

PAGE 228

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	□	MOAC S-222 TANK ALONE T4

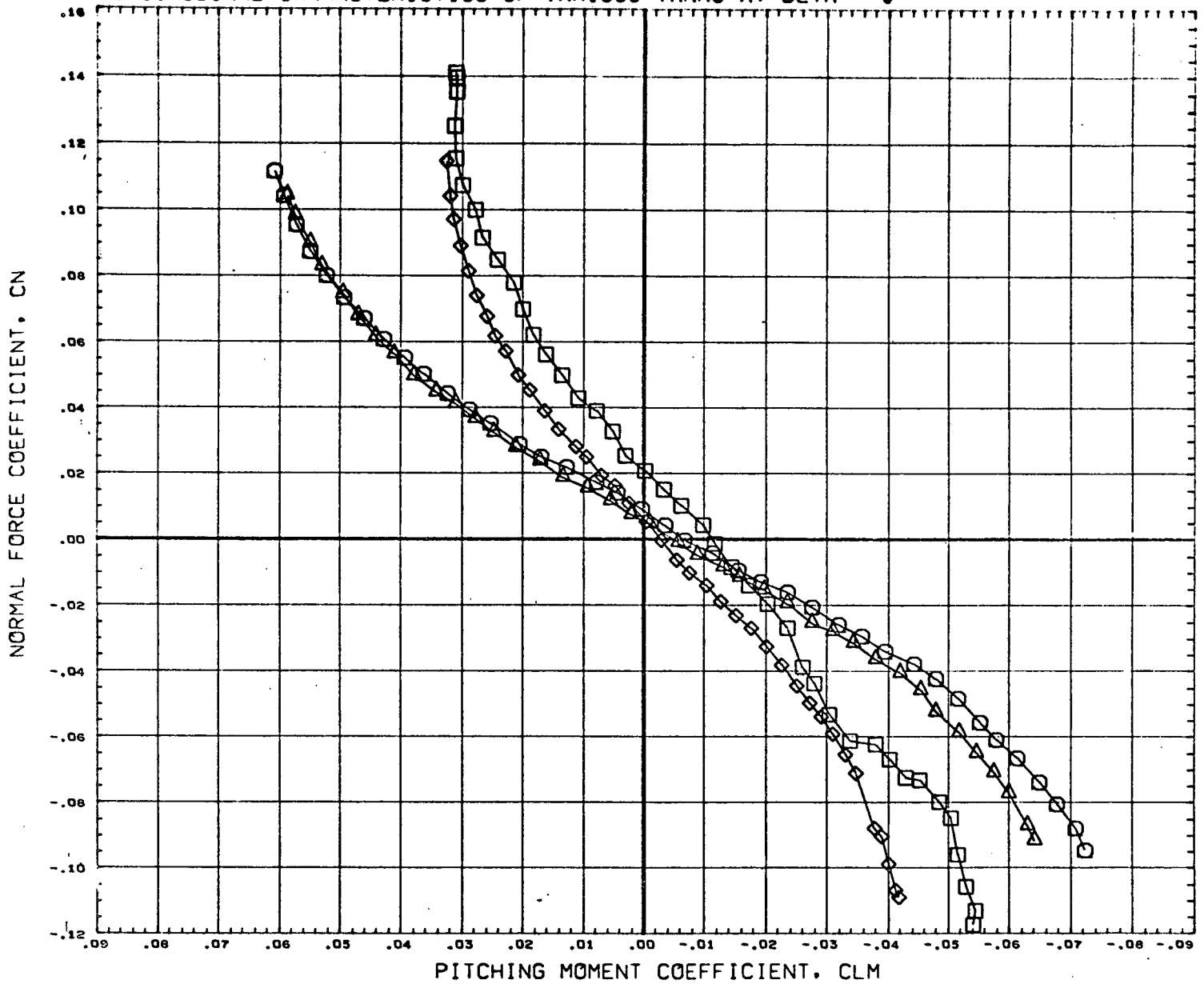
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SH.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 229

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

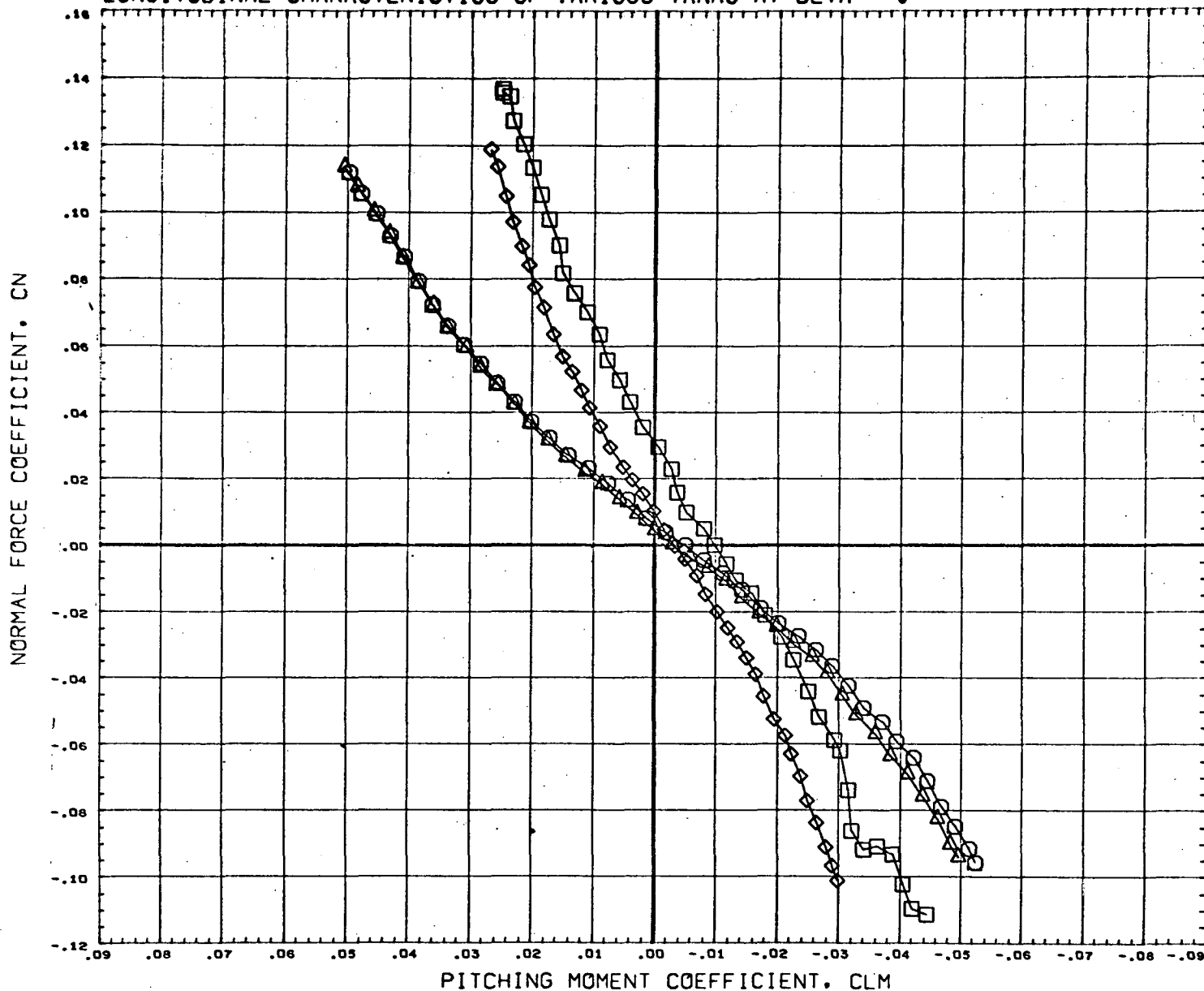
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	90.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 230

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

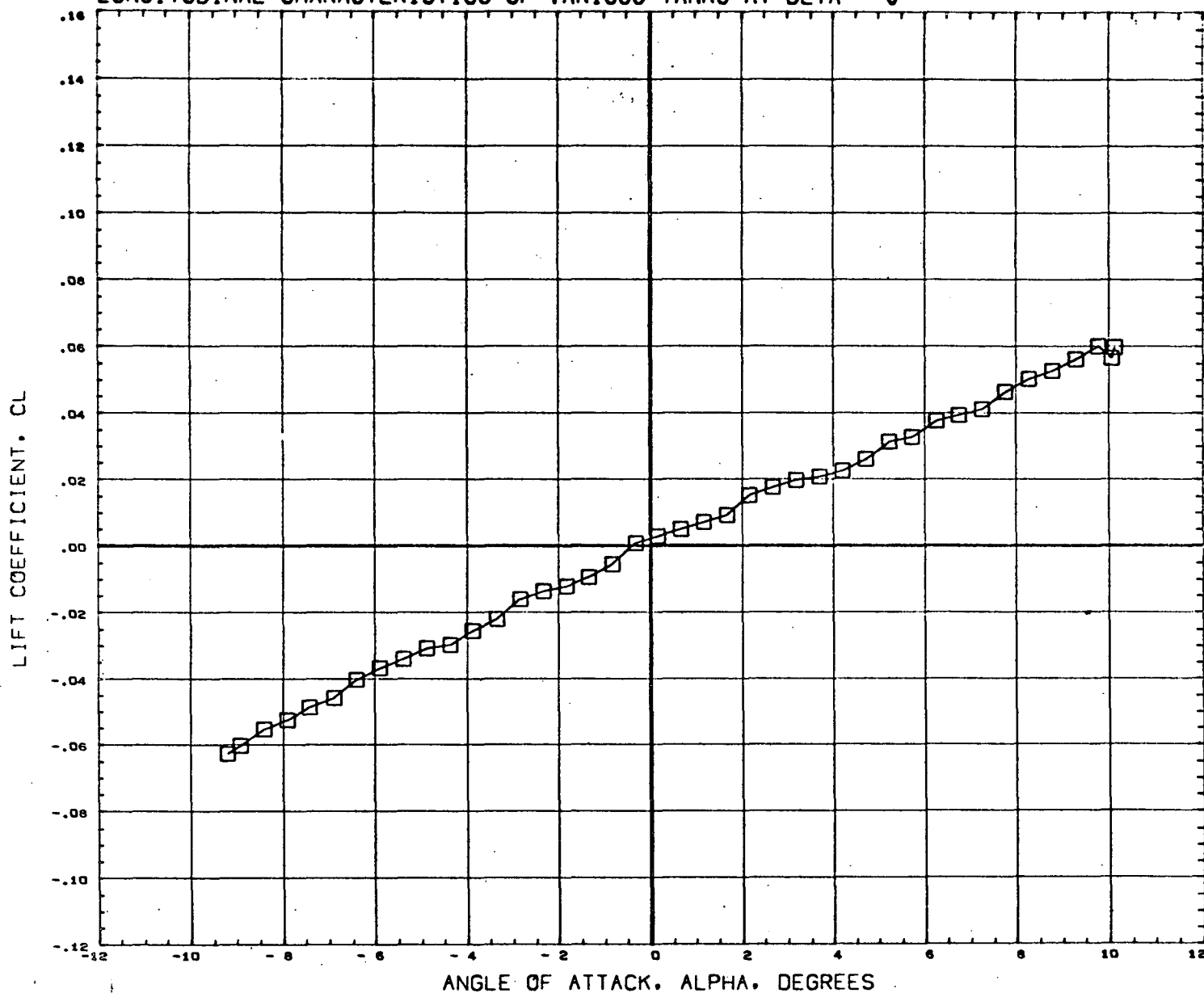
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 231

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07604)	MDAC S-222 TANK ALONE T4

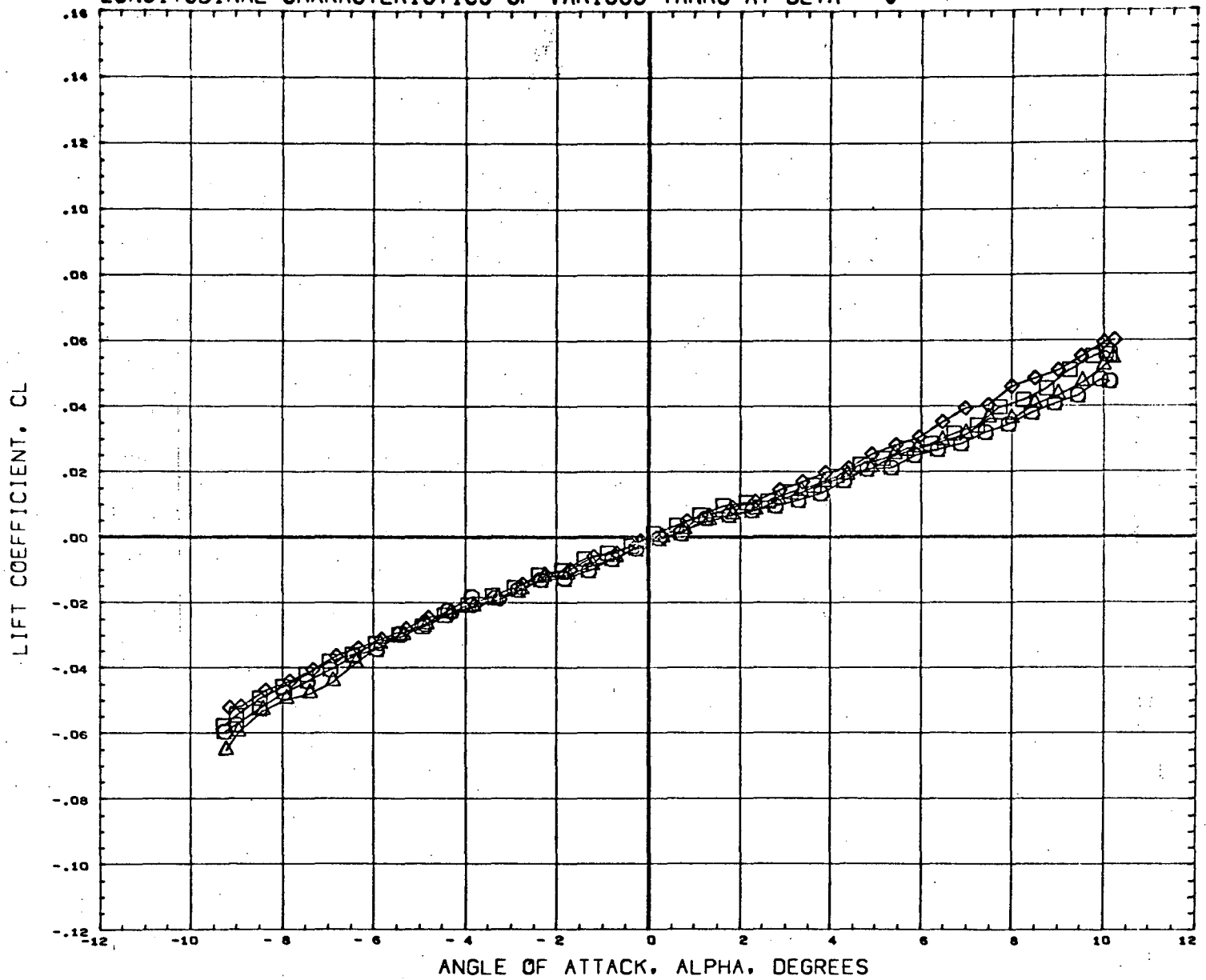
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .58

PAGE 232

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	MDAC S-222 TANK ALONE T1
(C07602)	MDAC S-222 TANK ALONE T2
(C07603)	MDAC S-222 TANK ALONE T3
(C07604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

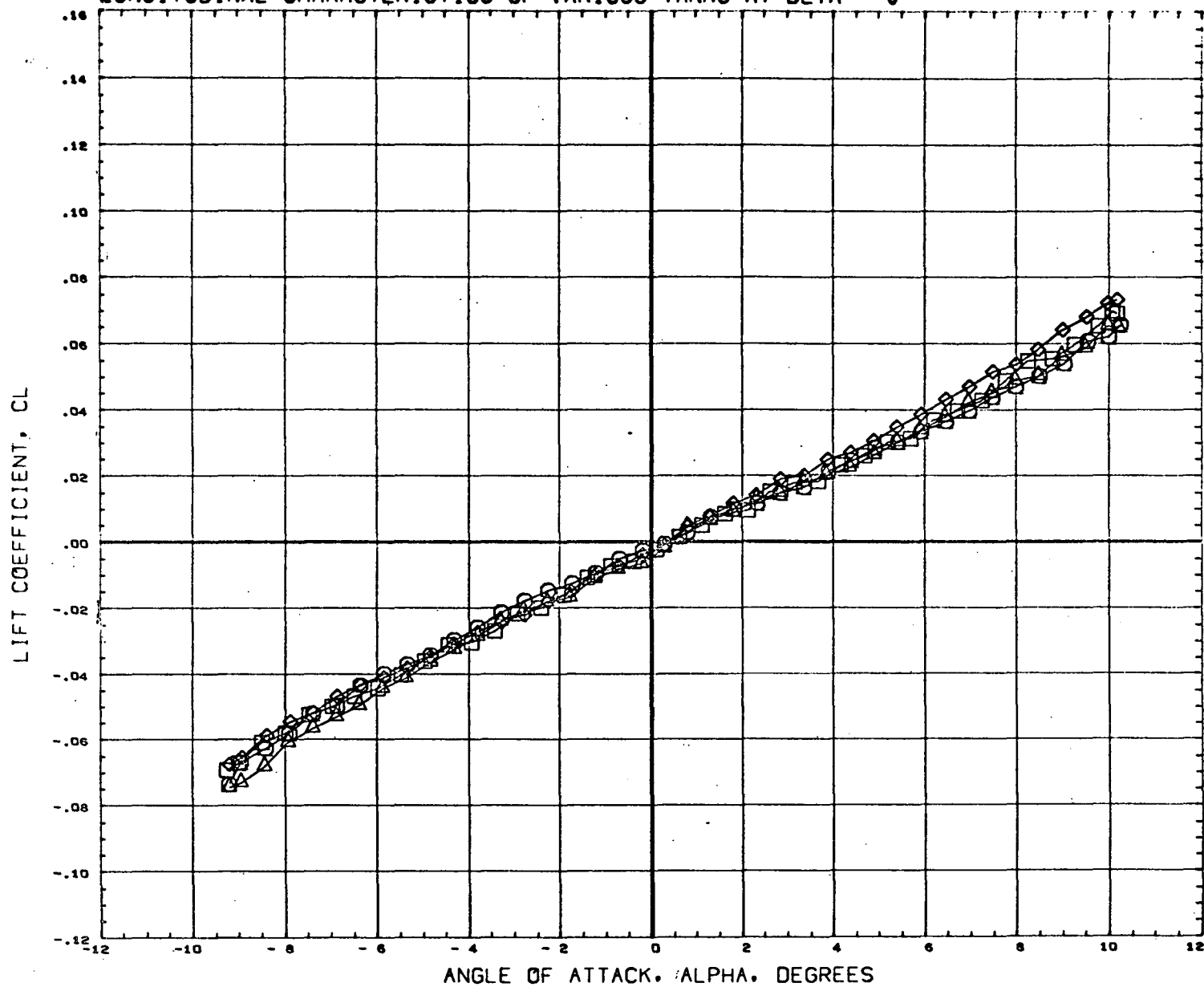
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 233

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	MDAC S-222 TANK ALONE T1
(C07602)	MDAC S-222 TANK ALONE T2
(C07603)	MDAC S-222 TANK ALONE T3
(C07604)	MDAC S-222 TANK ALONE T4

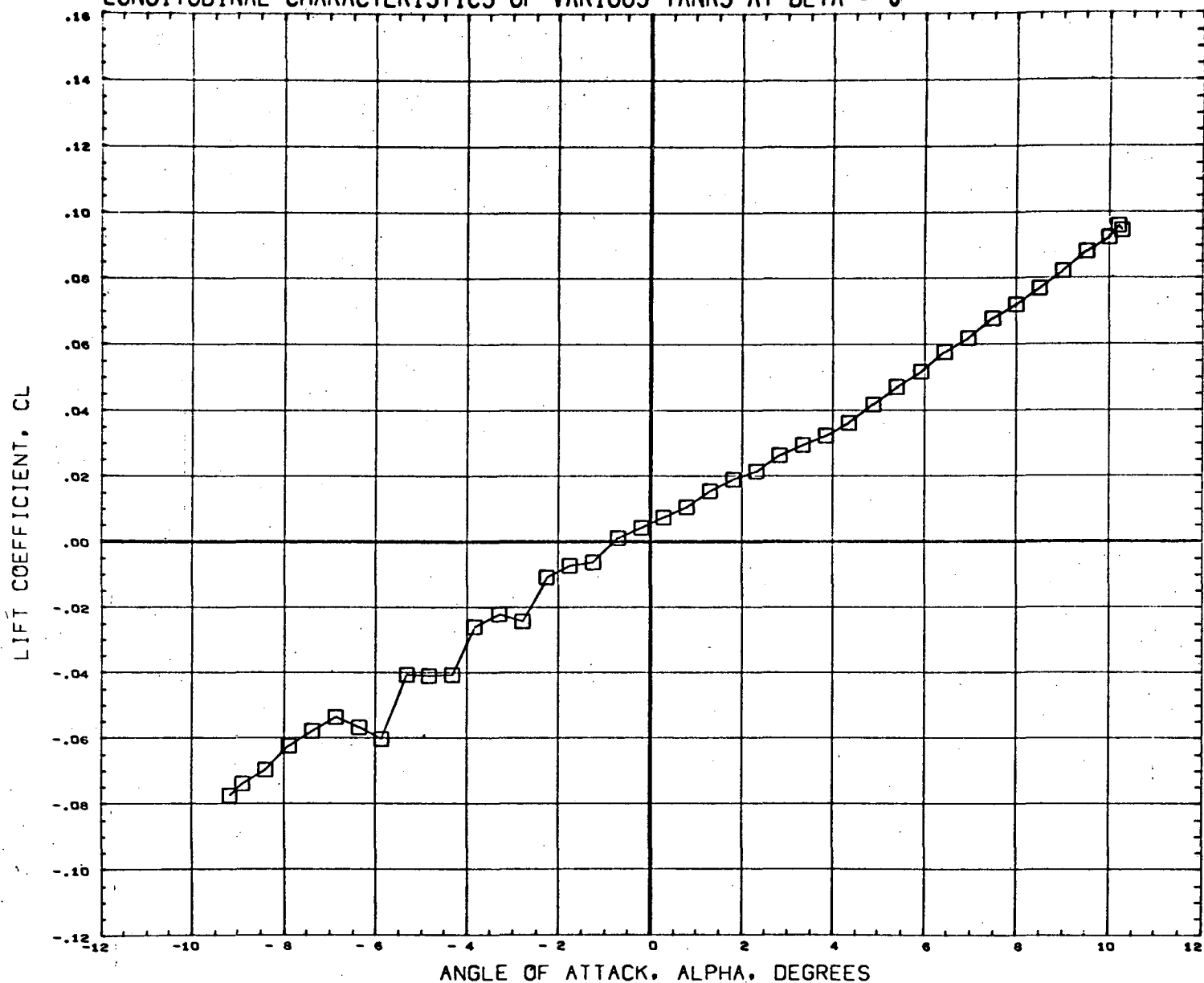
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 234

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

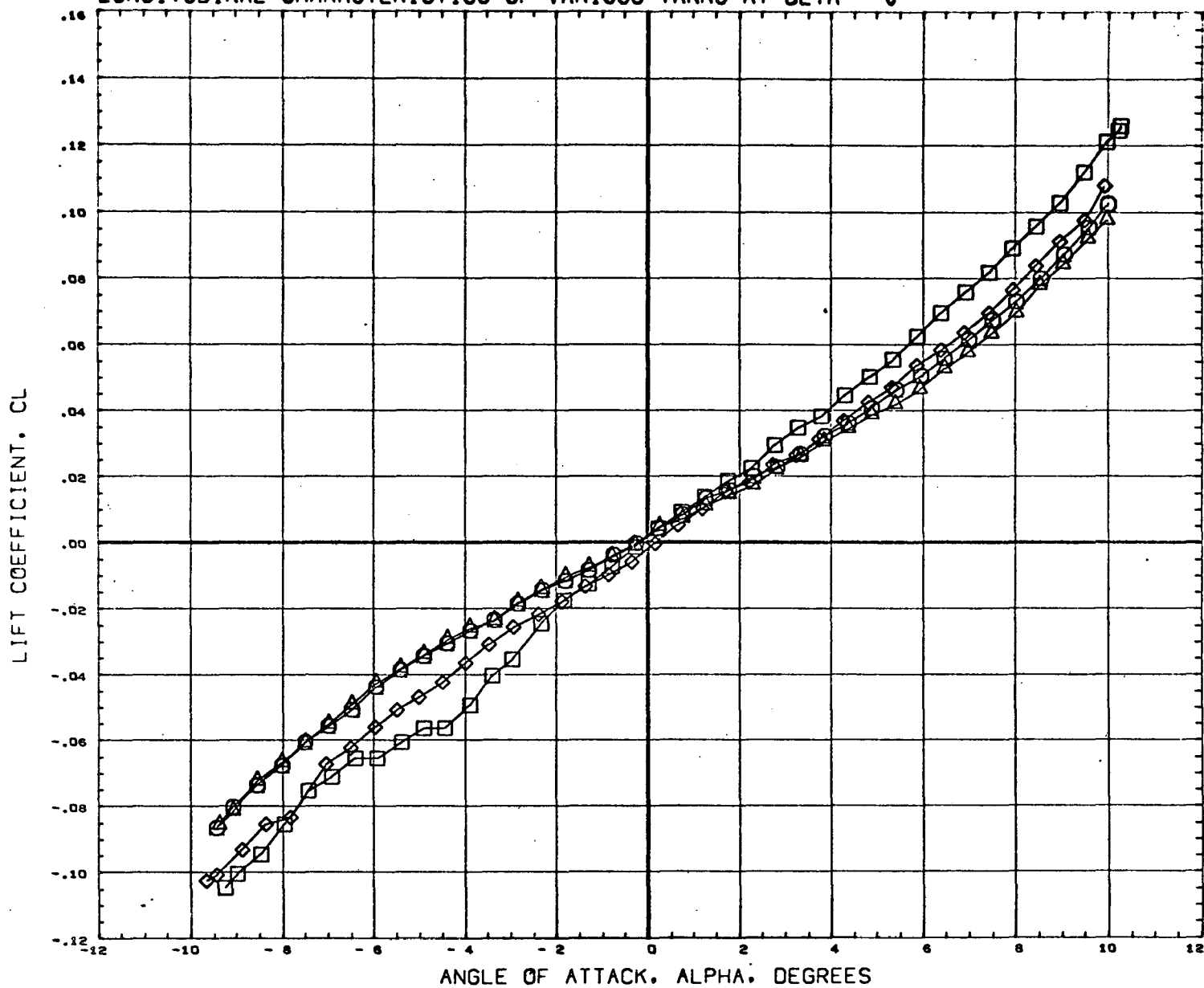
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	557.0004	IN.
YMRF	0.0000	IN.
ZMRF	200.0004	IN.
SCALE	0.0360	

MACH 1.51

PAGE 235

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT $\beta = 0$



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

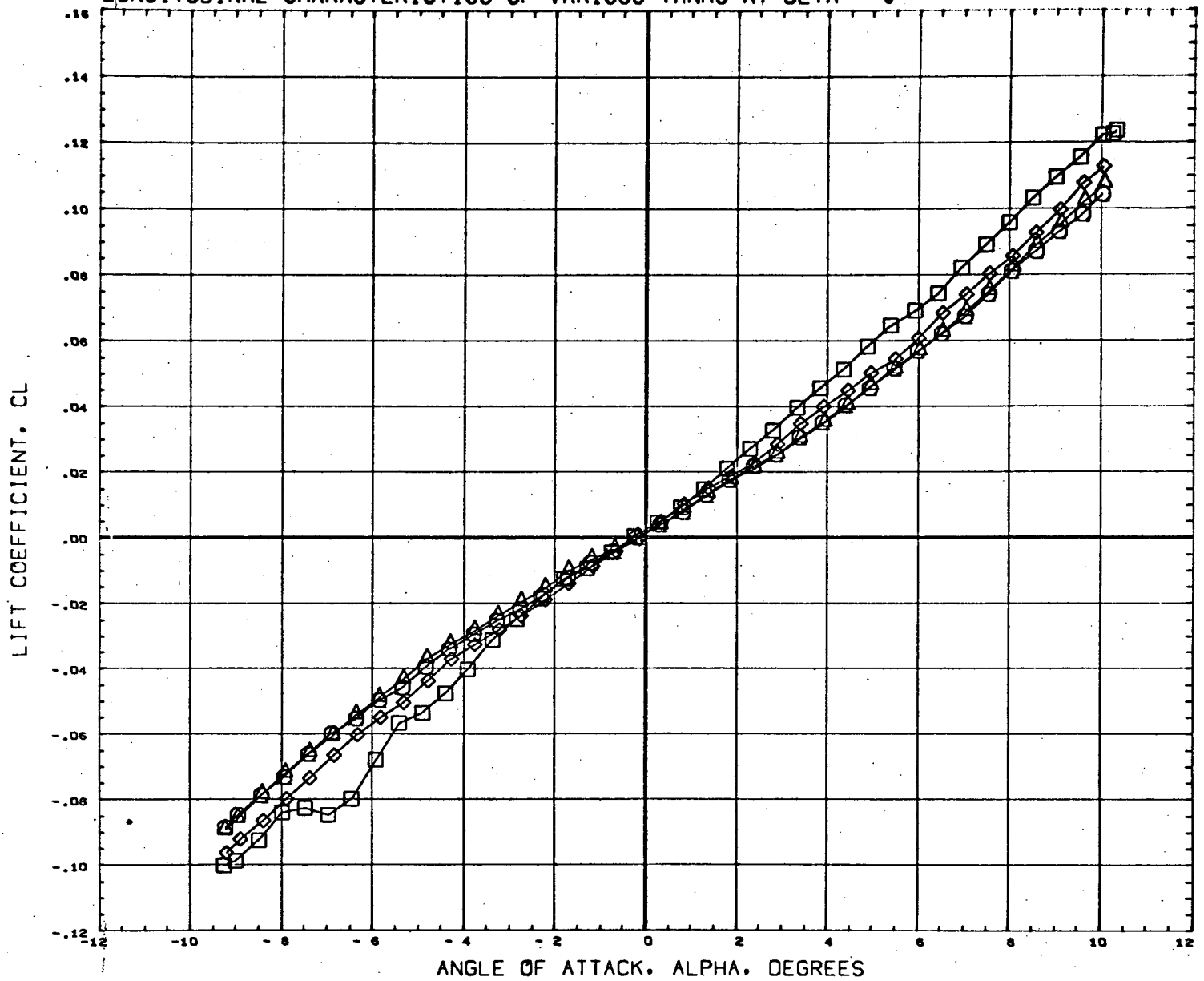
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

2.20

PAGE 236

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

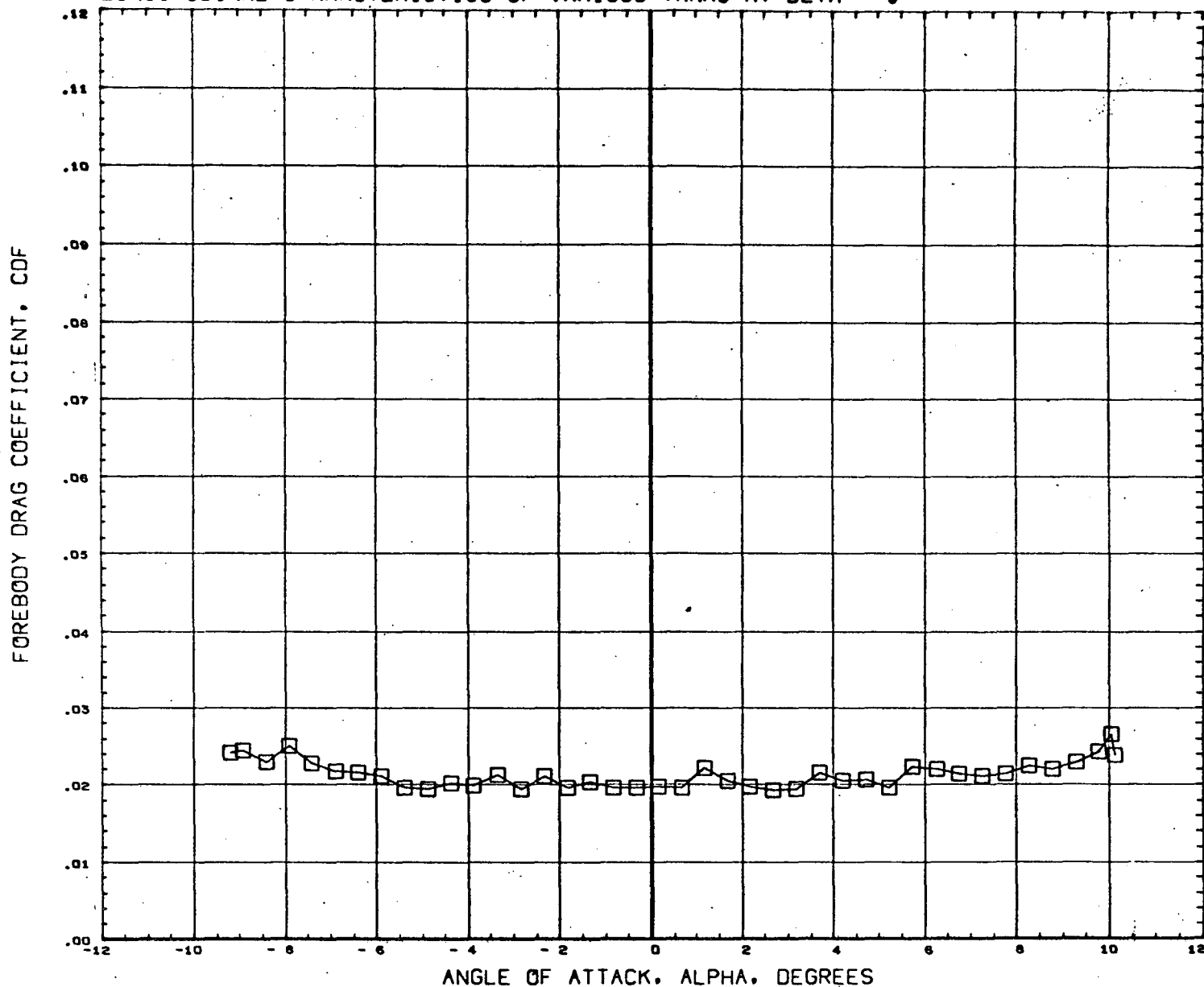
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMHP	557.0004	IN.
YMHP	0.0000	IN.
ZMHP	200.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 237

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7601) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7602) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7603) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7604) MDAC S-222 TANK ALONE T4

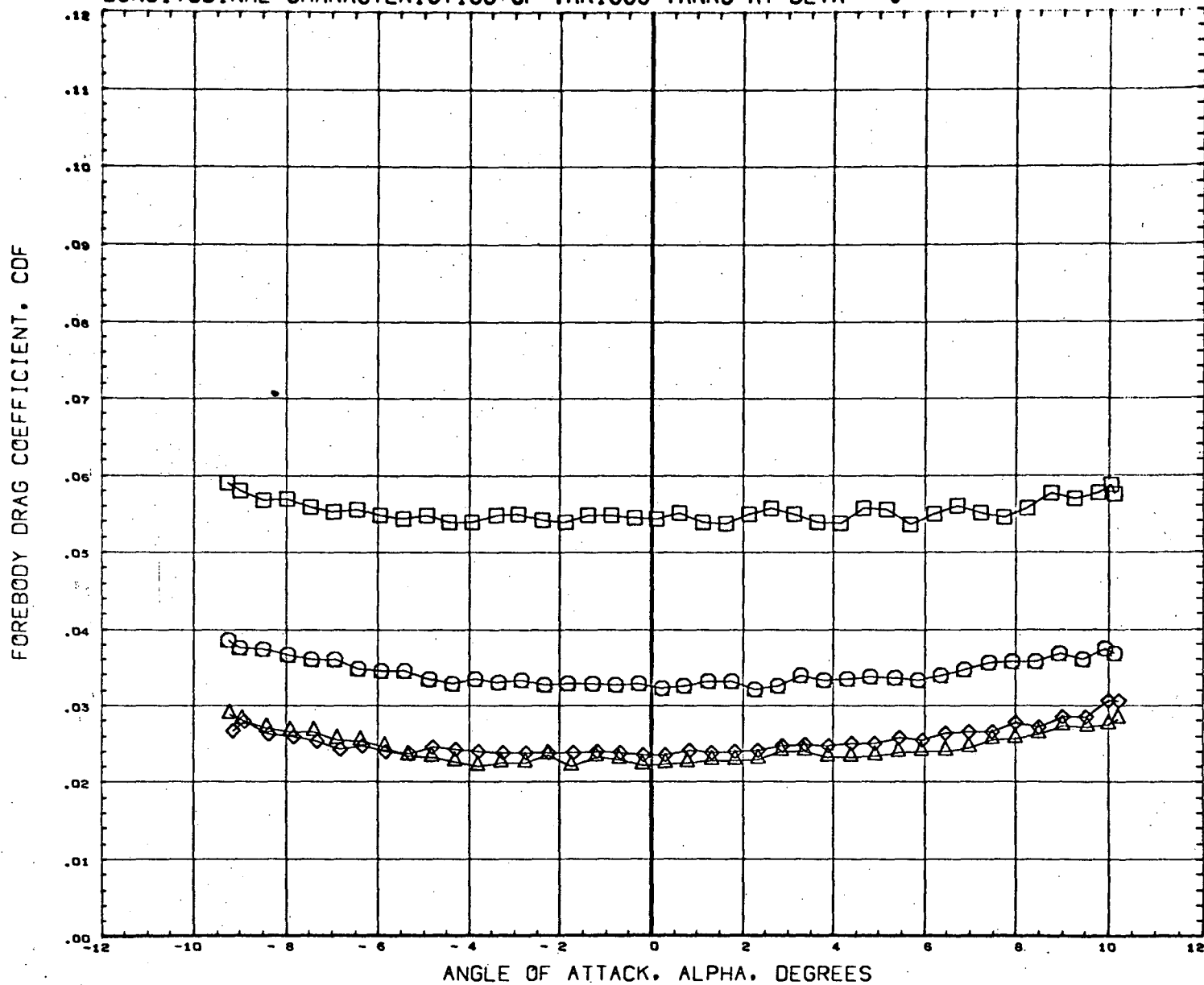
BETA
 0.000
 0.000
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 557.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 200.0004 IN.
 SCALE 0.0060

MACH .58

PAGE 238

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

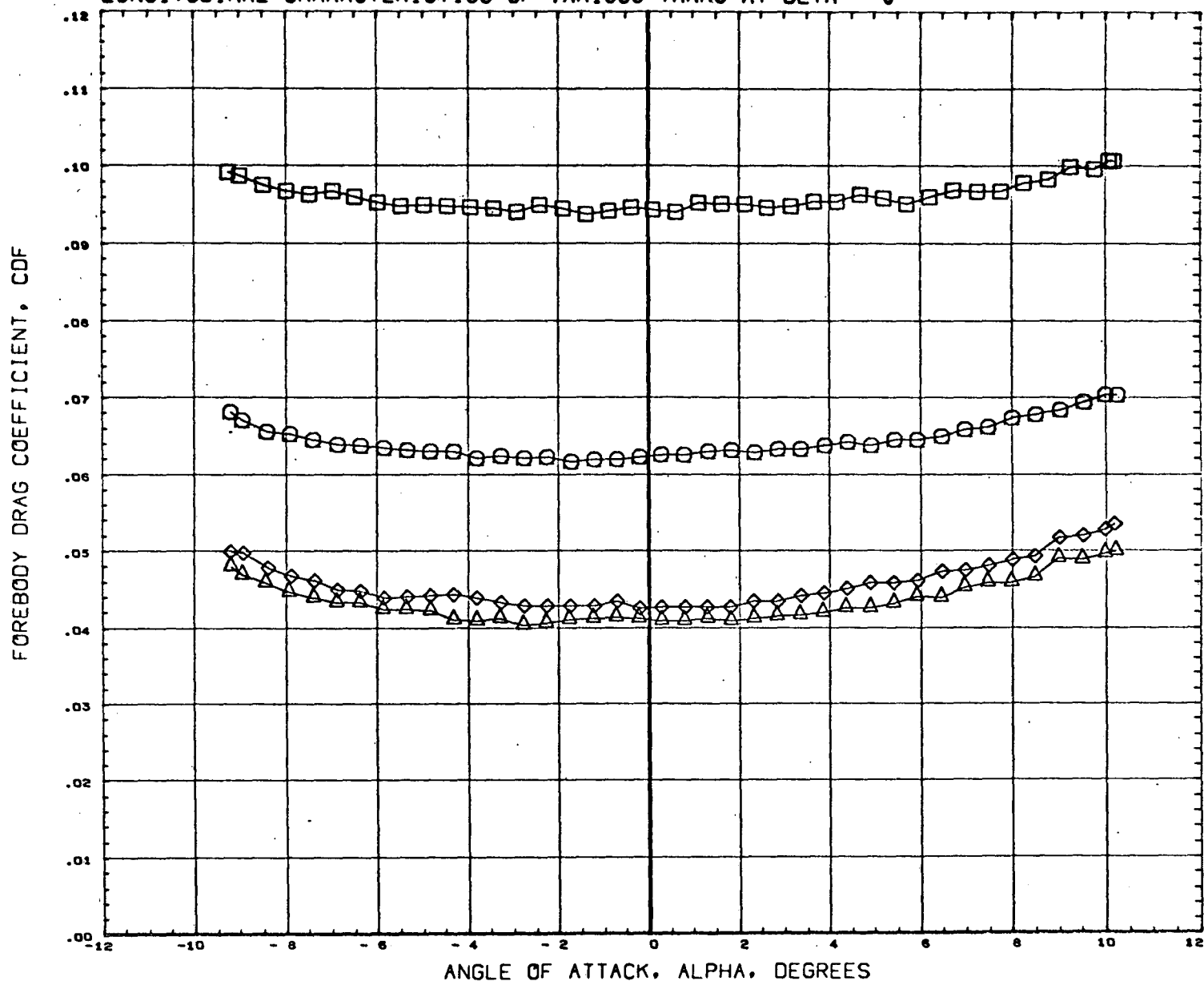
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 239

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

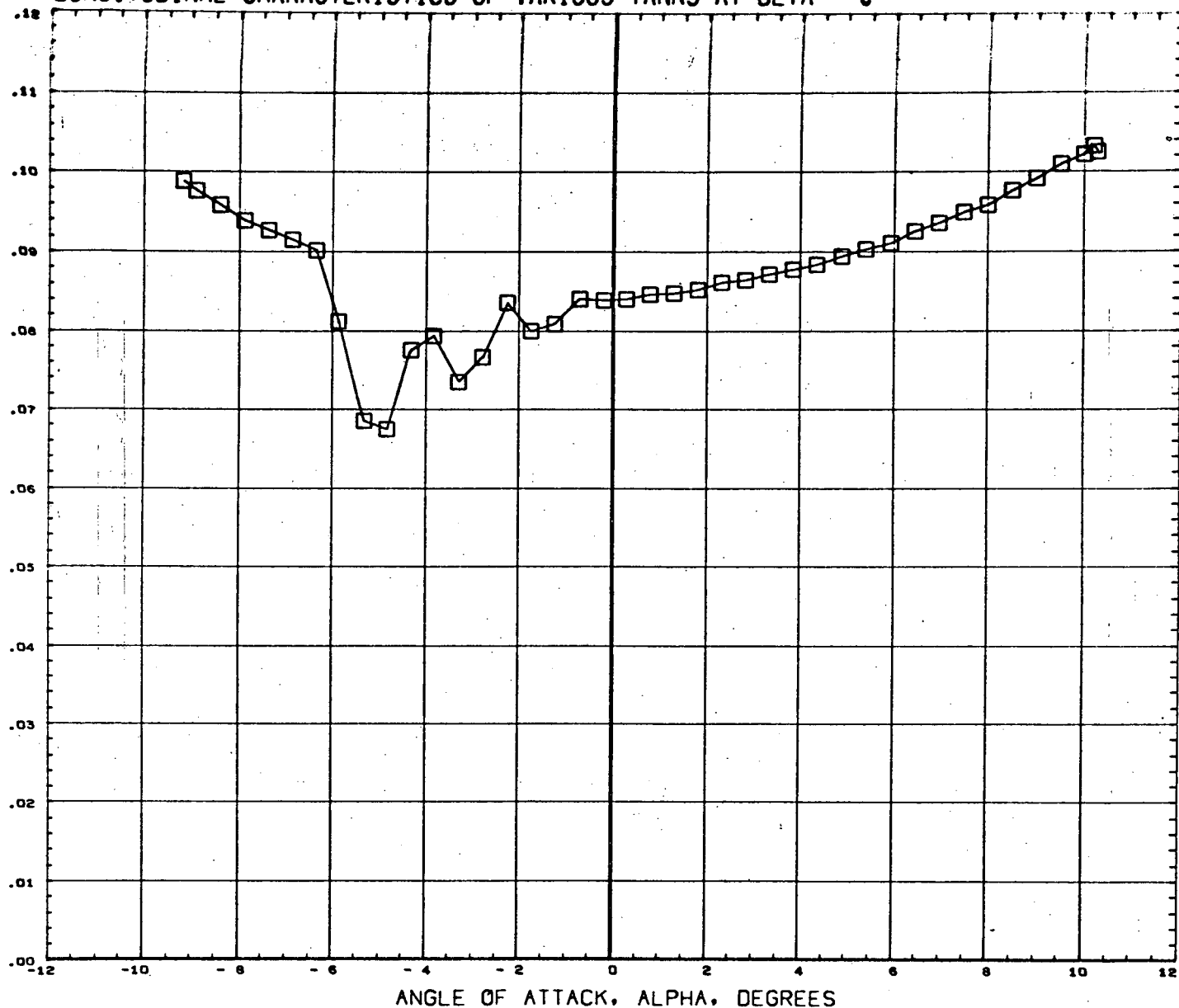
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 240

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7601) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7602) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7603) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7604) MDAC S-222 TANK ALONE T4

BETA
 0.000
 0.000
 0.000
 0.000

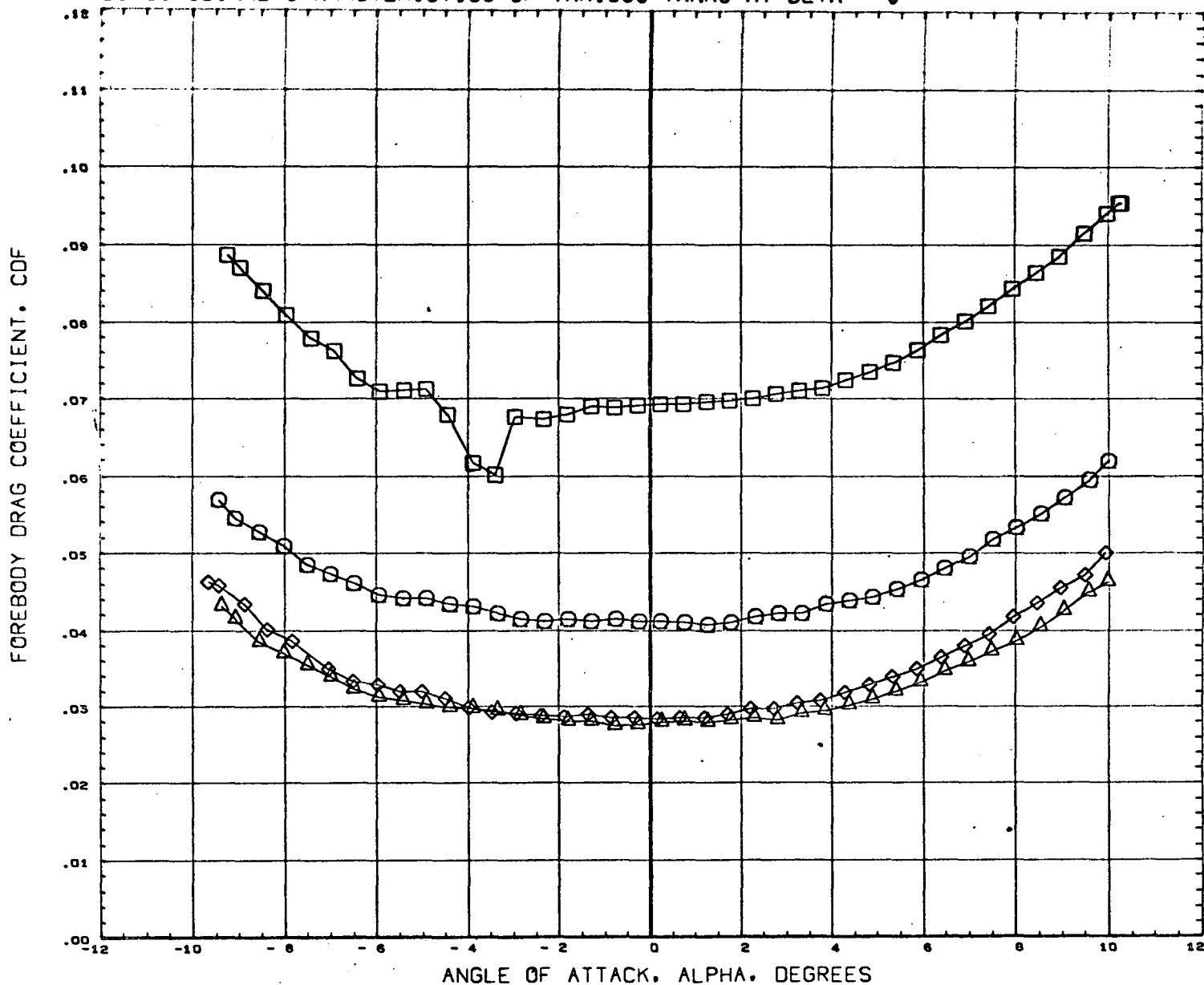
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.3004 IN.
 BREF 882.0004 IN.
 XMRP 557.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 200.0004 IN.
 SCALE 0.0060

MACH

1.51

PAGE 241

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

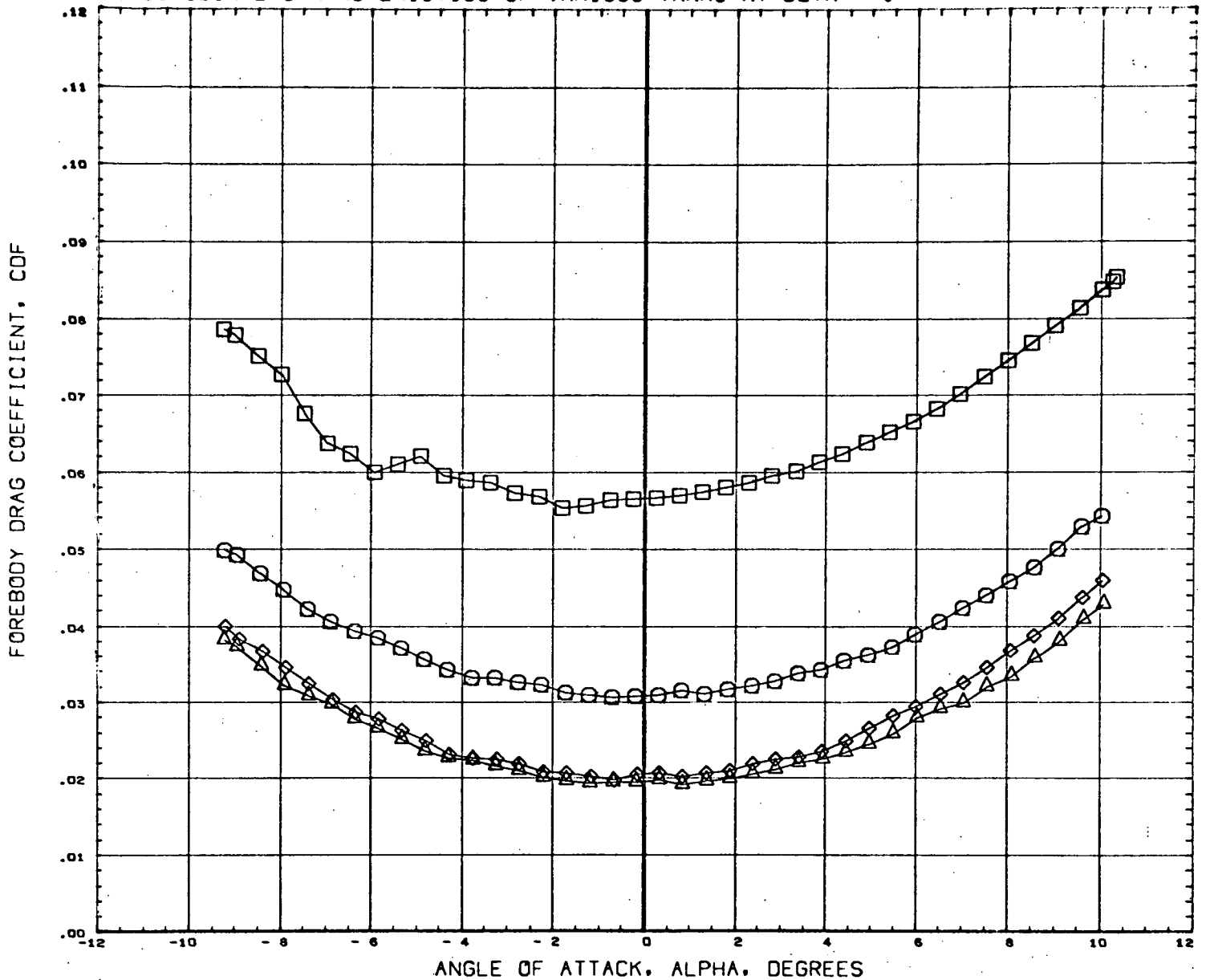
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 242

C.5

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

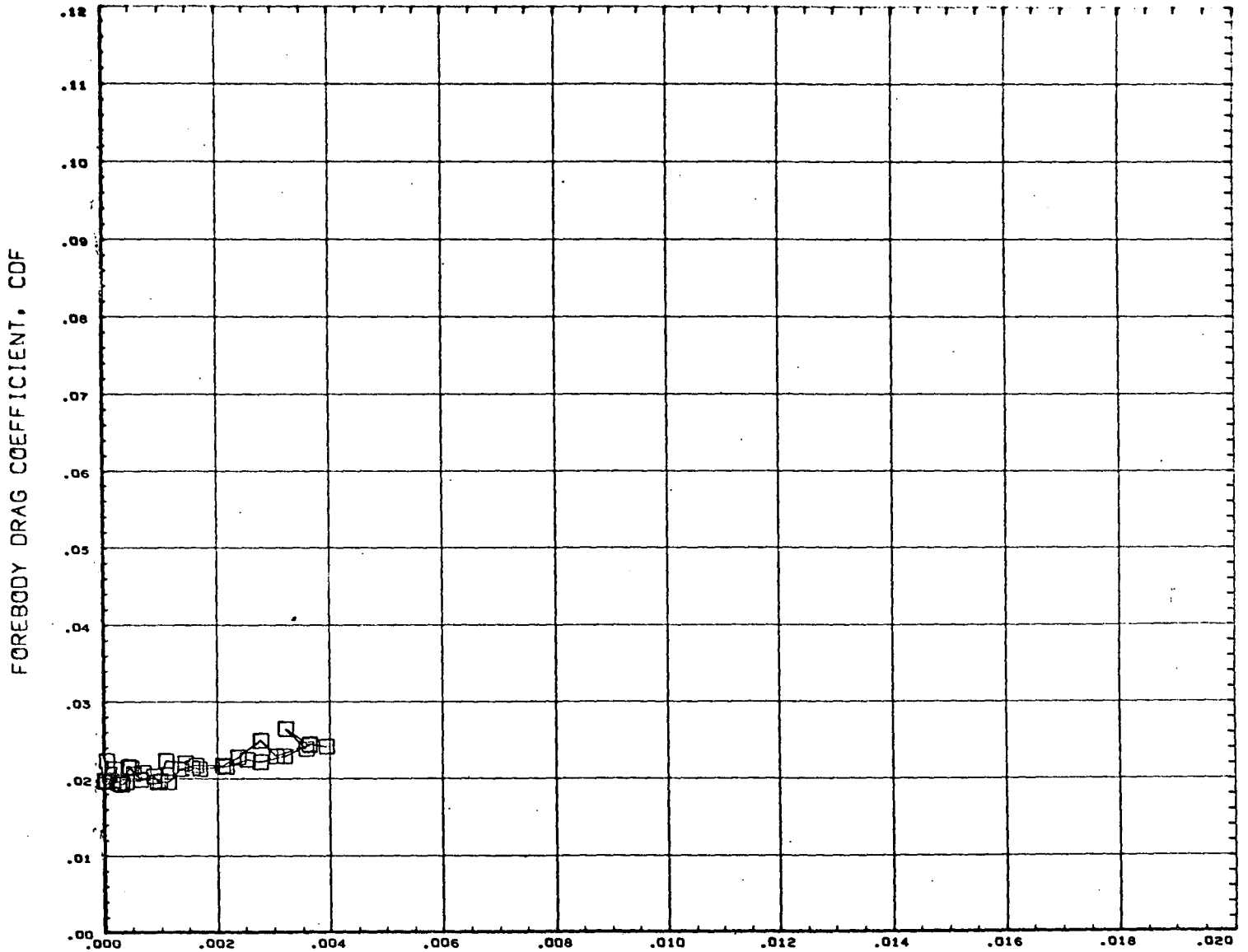
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 243

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

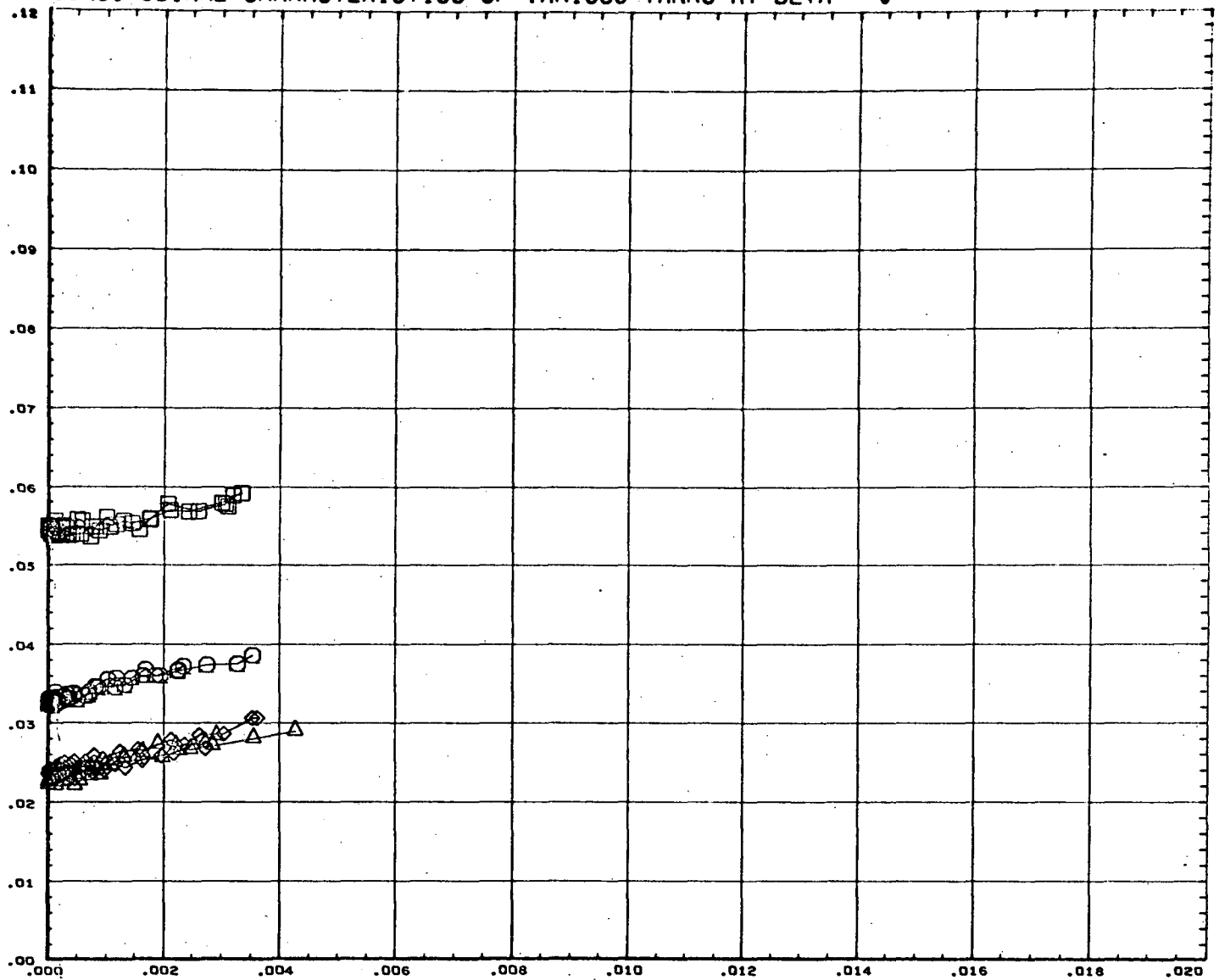
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .58

PAGE 244

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601) ○	MDAC S-222 TANK ALONE T1
(CD7602) △	MDAC S-222 TANK ALONE T2
(CD7603) ◇	MDAC S-222 TANK ALONE T3
(CD7604) □	MDAC S-222 TANK ALONE T4

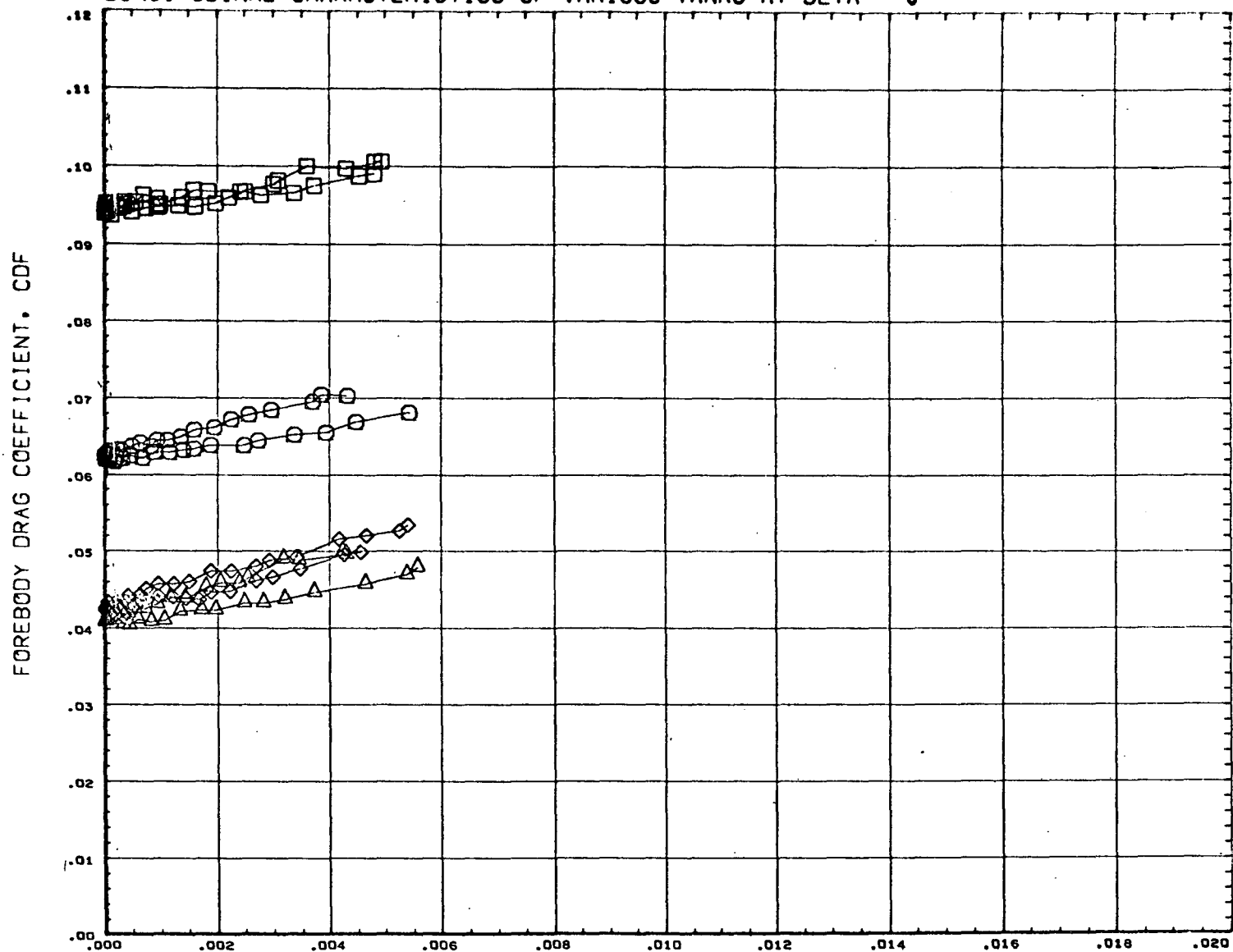
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 245

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	○	MDAC S-222 TANK ALONE T1
(C07602)	◇	MDAC S-222 TANK ALONE T2
(C07603)	△	MDAC S-222 TANK ALONE T3
(C07604)	□	MDAC S-222 TANK ALONE T4

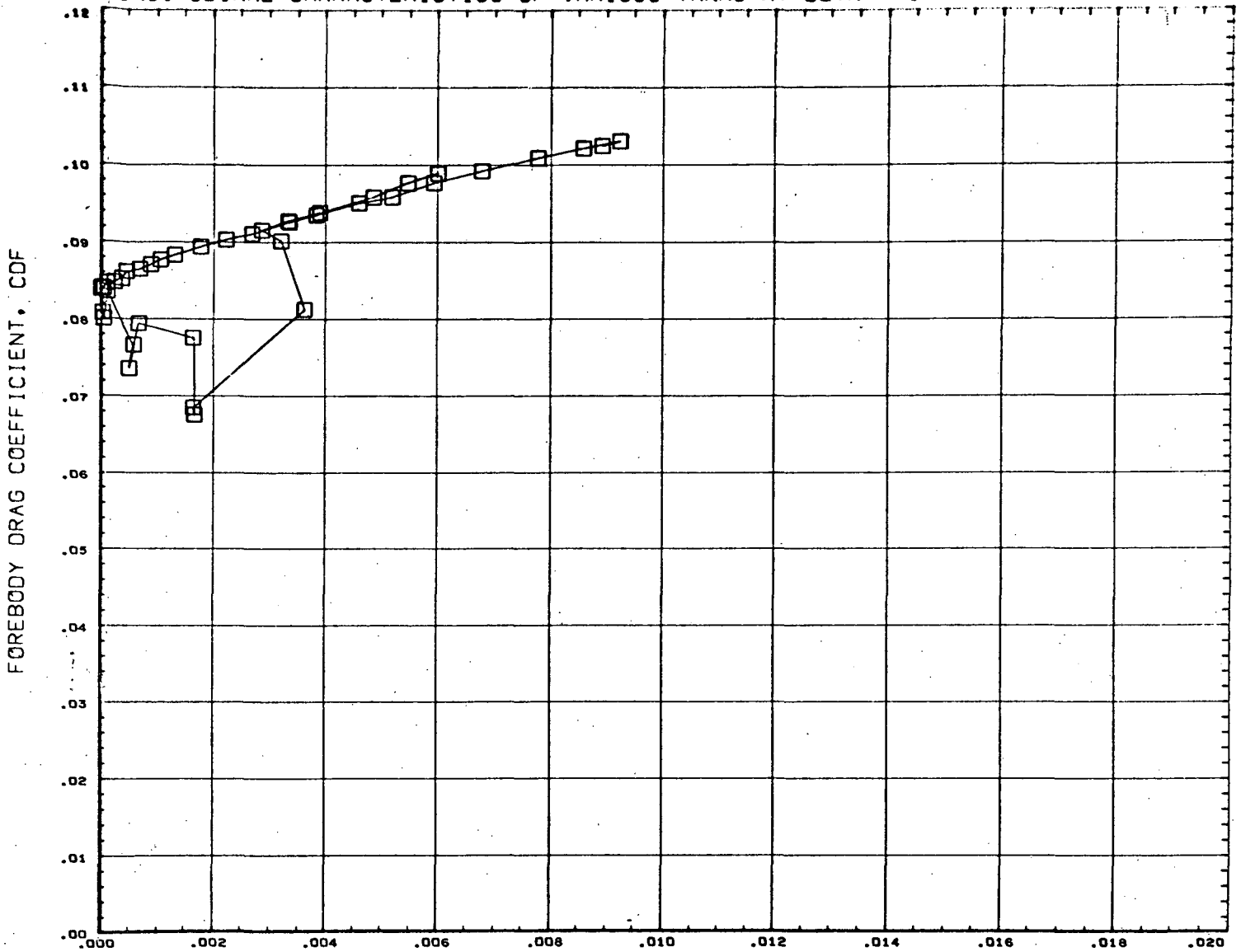
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 246

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07604)	MDAC S-222 TANK ALONE T4

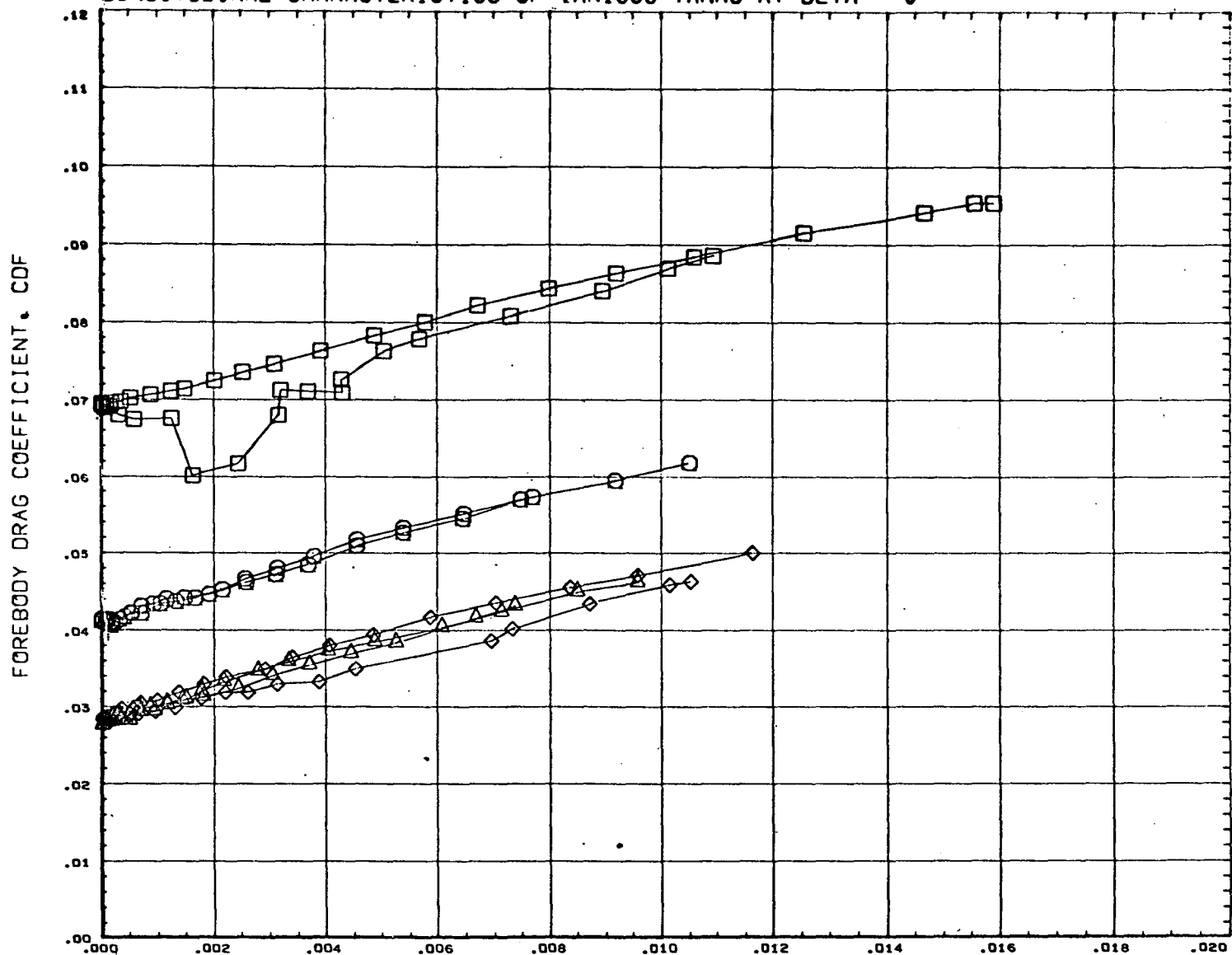
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 247

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	MDAC S-222 TANK ALONE T1
(C07602)	MDAC S-222 TANK ALONE T2
(C07603)	MDAC S-222 TANK ALONE T3
(C07604)	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

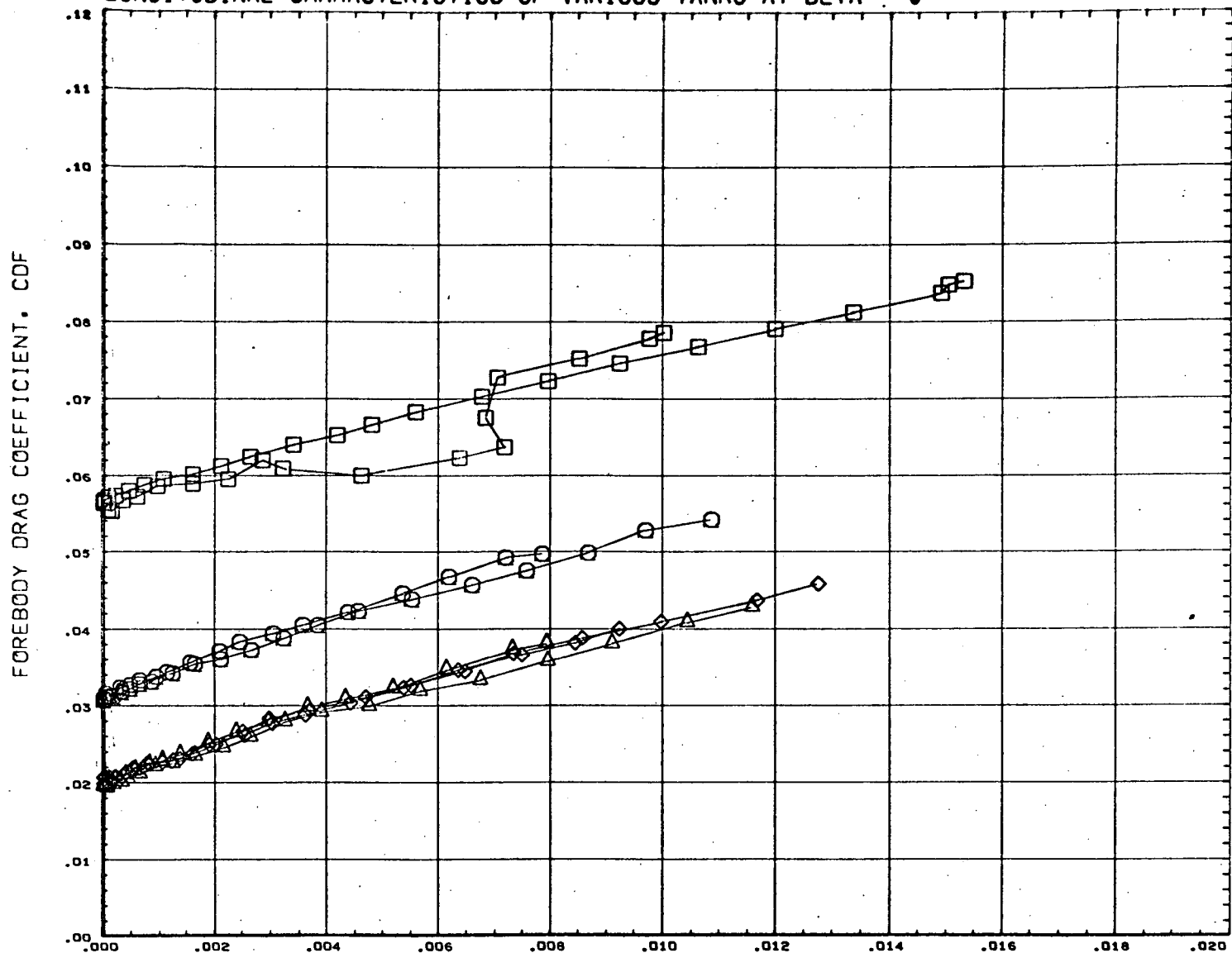
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 248

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

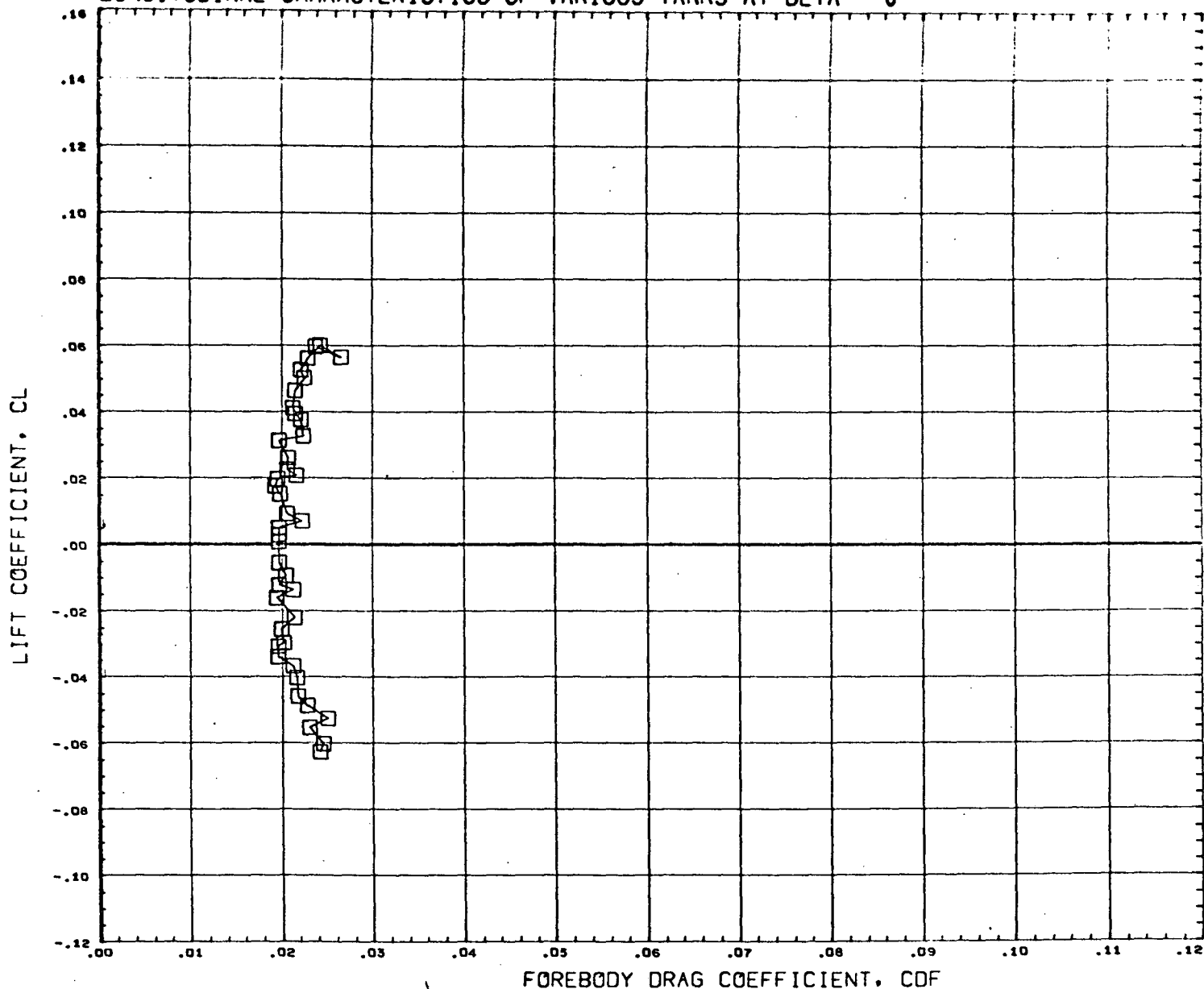
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 0.0000 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 249

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



FOREBODY DRAG COEFFICIENT, CDF

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MOAC S-222 TANK ALONE T4

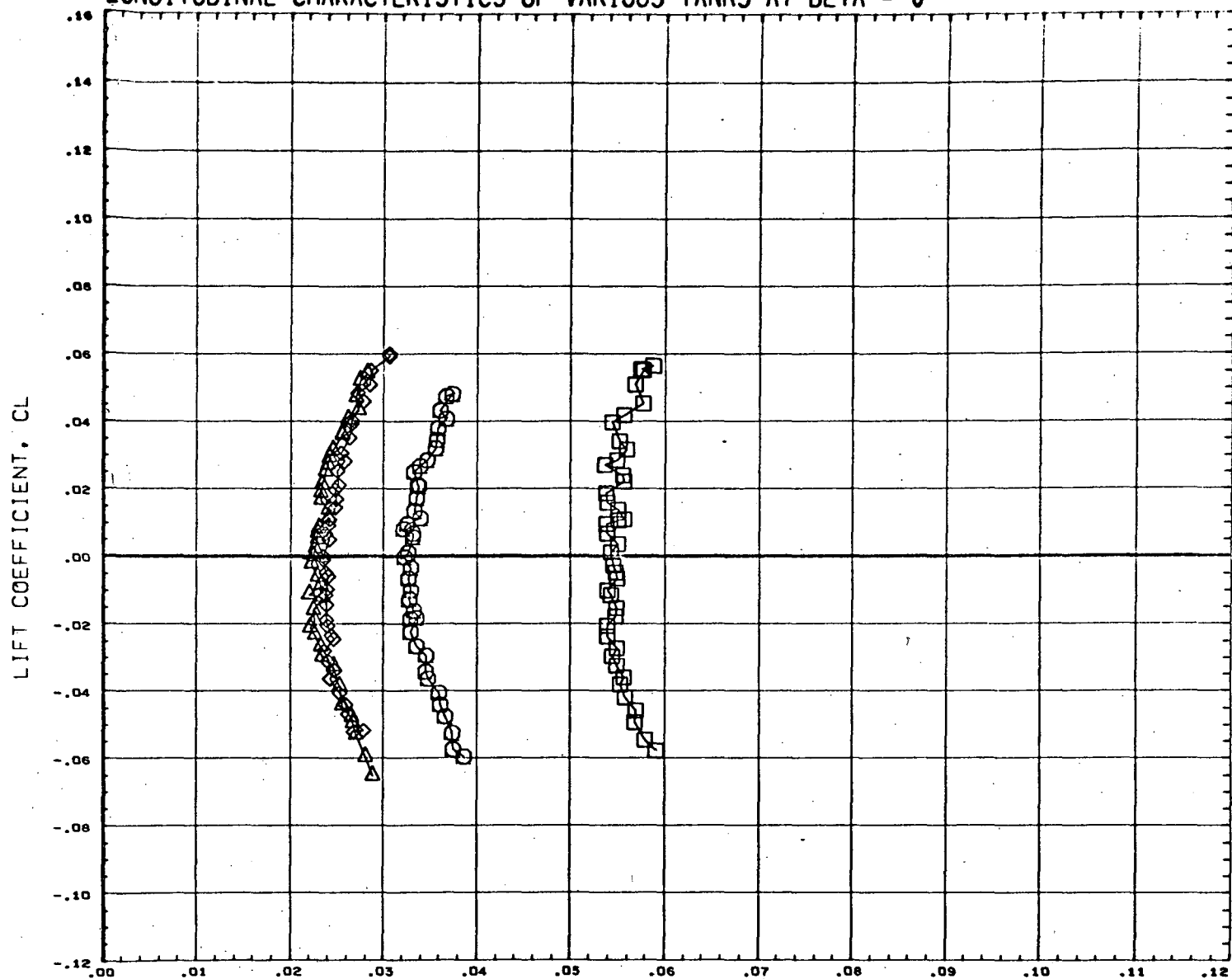
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	357.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .58

PAGE 250

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	MDAC S-222 TANK ALONE T1
(C07602)	MDAC S-222 TANK ALONE T2
(C07603)	MDAC S-222 TANK ALONE T3
(C07604)	MDAC S-222 TANK ALONE T4

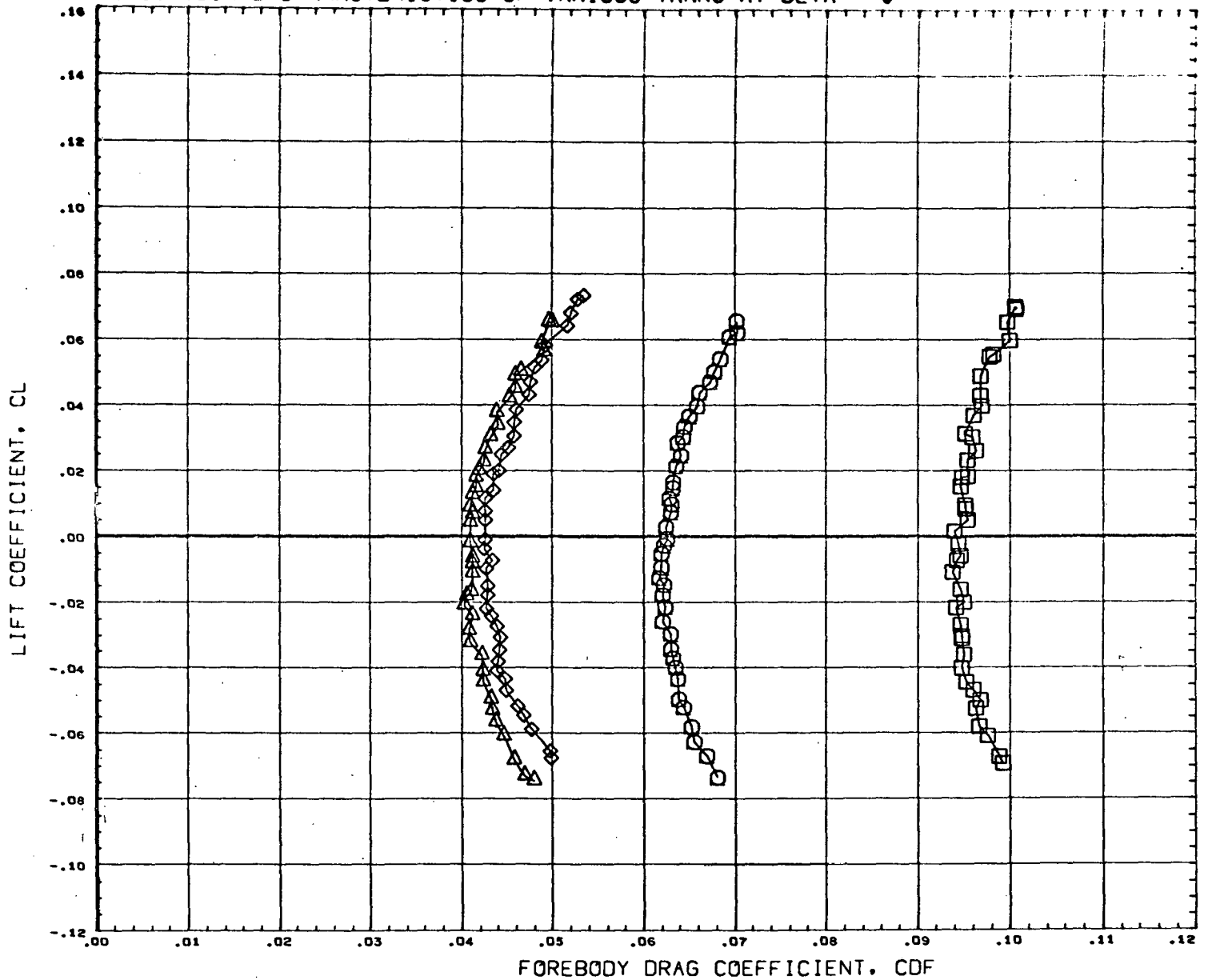
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 251

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

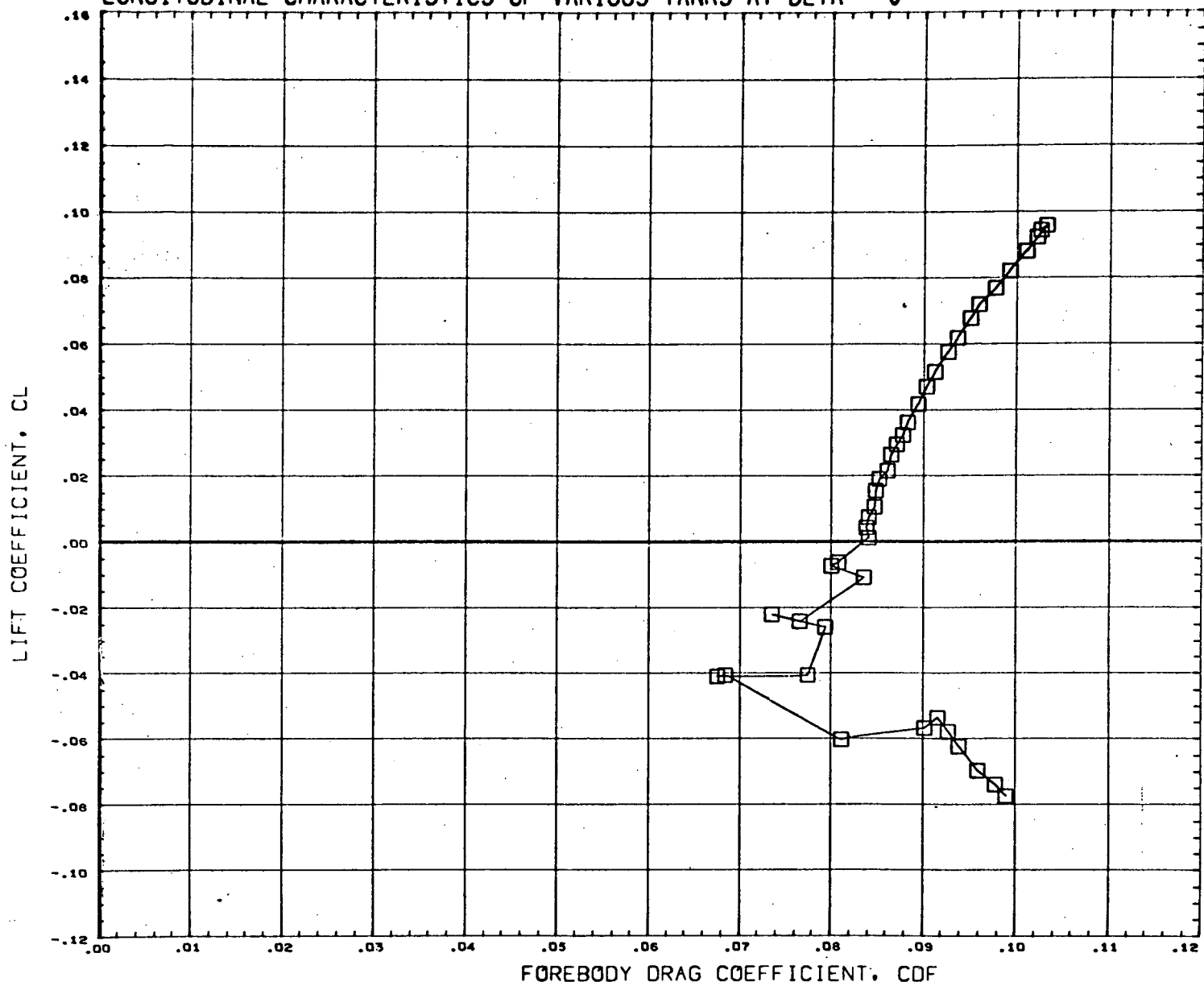
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 252

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	□	MDAC S-222 TANK ALONE T4

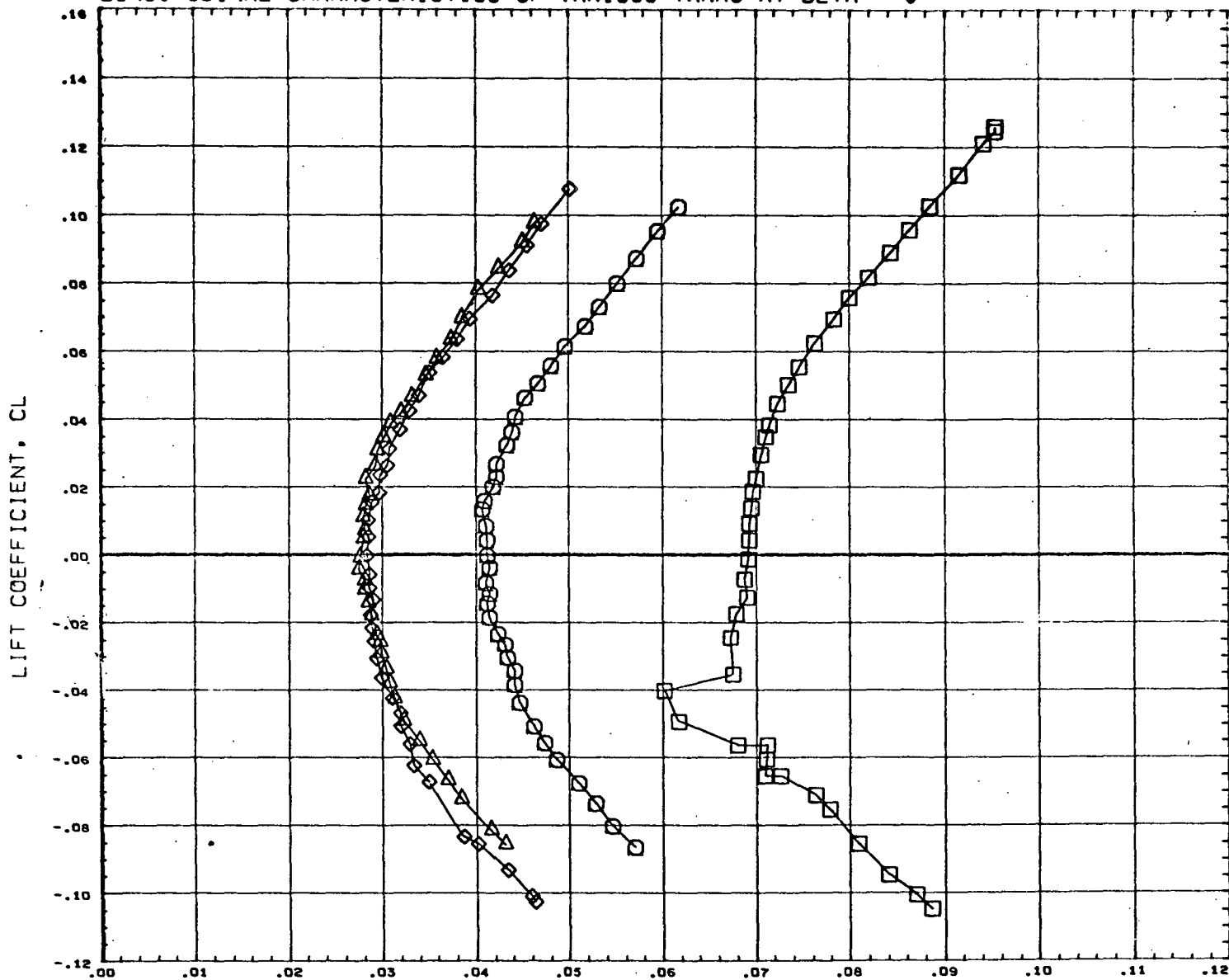
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 253

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



FOREBODY DRAG COEFFICIENT, CDF

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(C07601)	○	MDAC S-222 TANK ALONE T1
(C07602)	△	MDAC S-222 TANK ALONE T2
(C07603)	◇	MDAC S-222 TANK ALONE T3
(C07604)	□	MDAC S-222 TANK ALONE T4

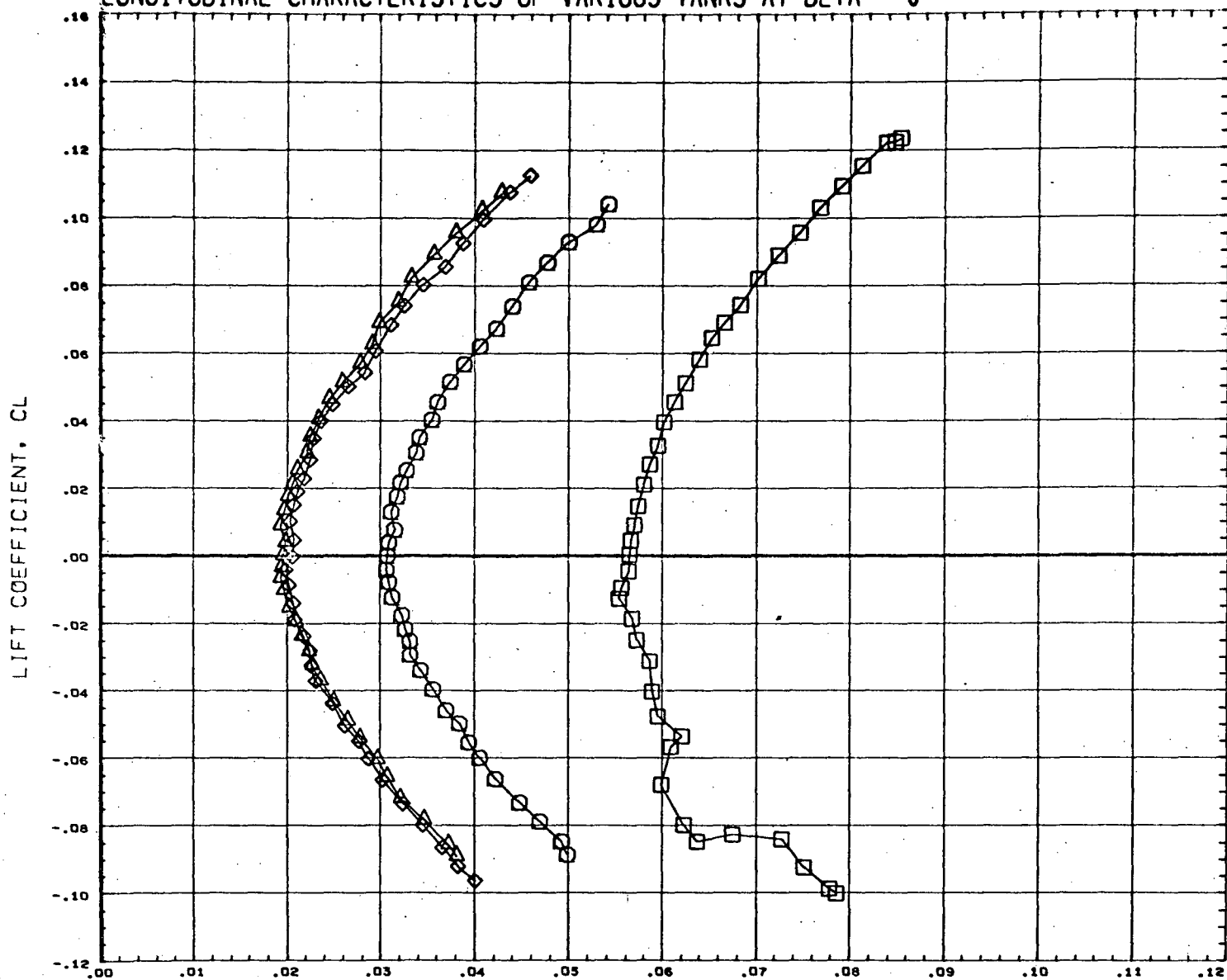
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 254

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

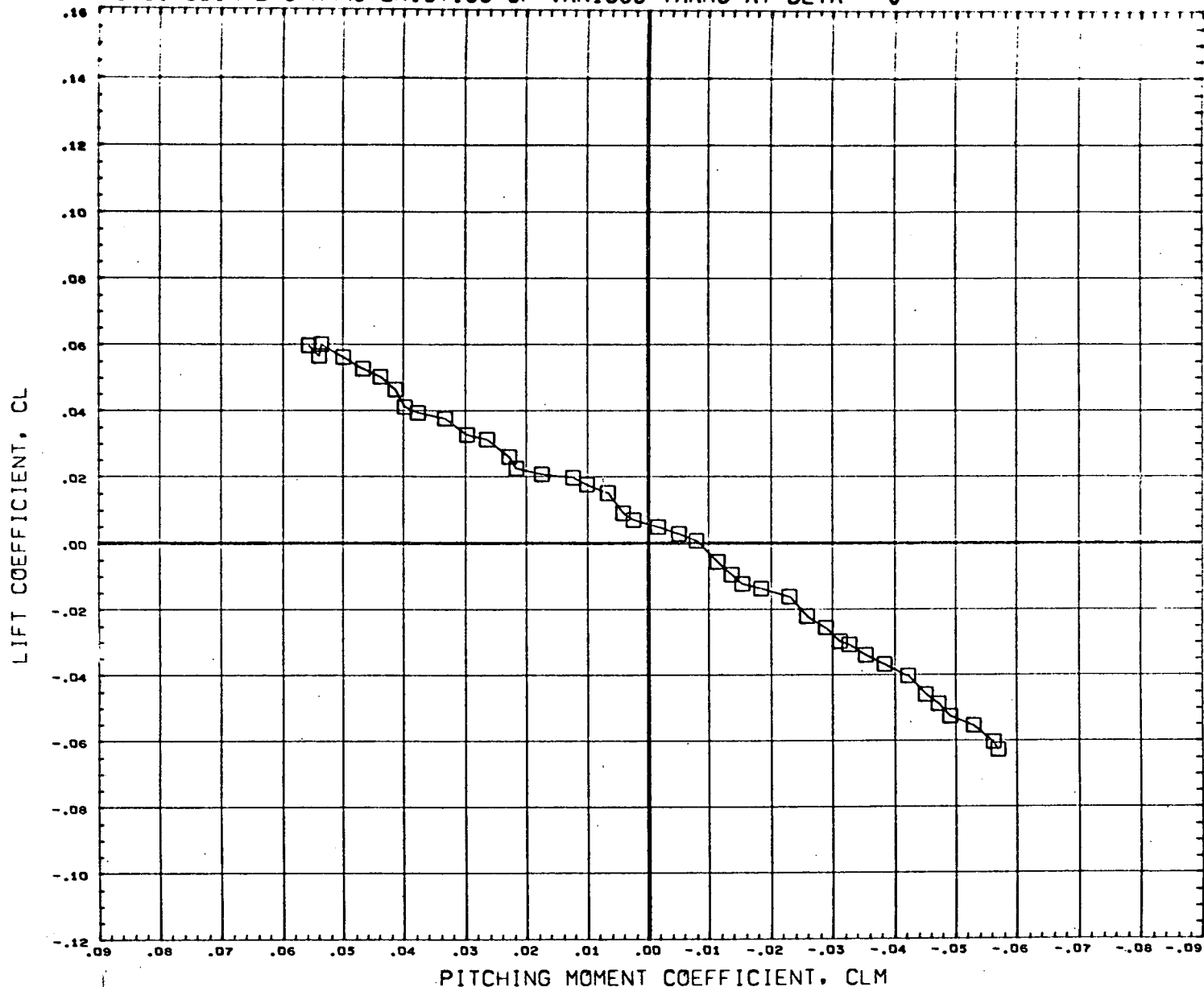
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 255

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	◇	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	□	MDAC S-222 TANK ALONE T4

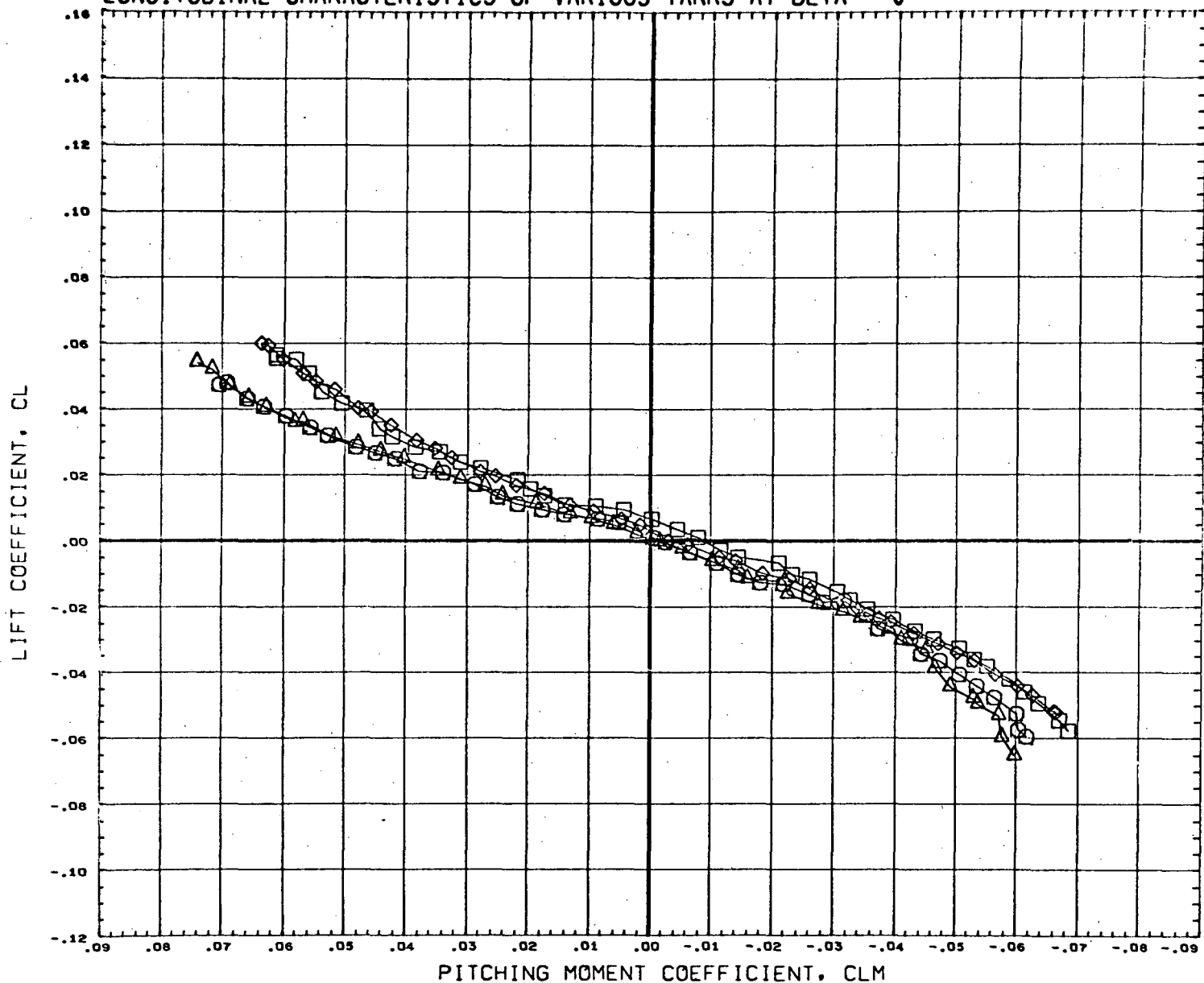
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	S2.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .58

PAGE 256

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

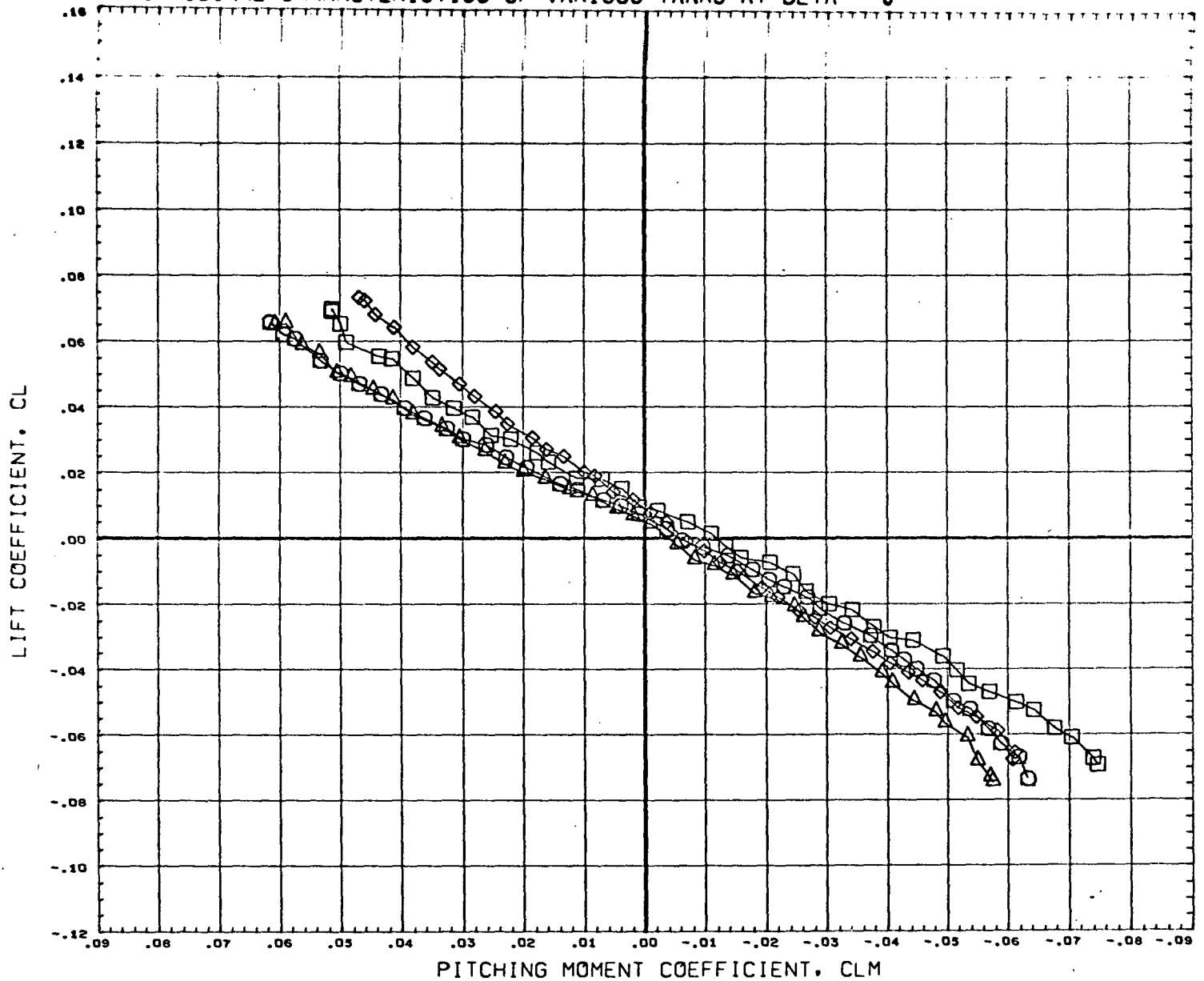
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .90

PAGE 257

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

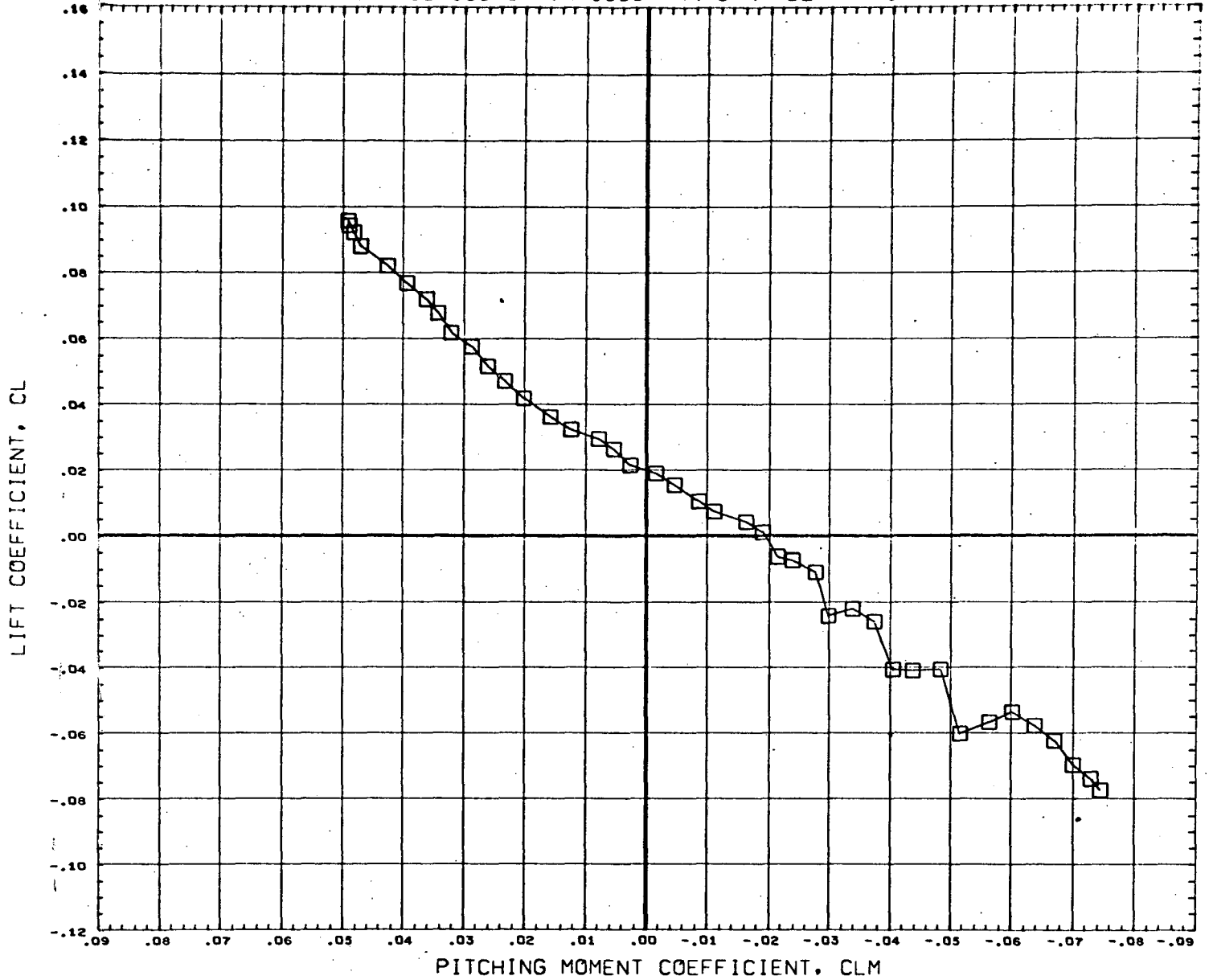
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	557.0004	IN.
YMRF	0.0000	IN.
ZMRF	200.0004	IN.
SCALE	0.0060	

MACH 1.10

PAGE 258

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7602)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7603)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7604)	MDAC S-222 TANK ALONE T4

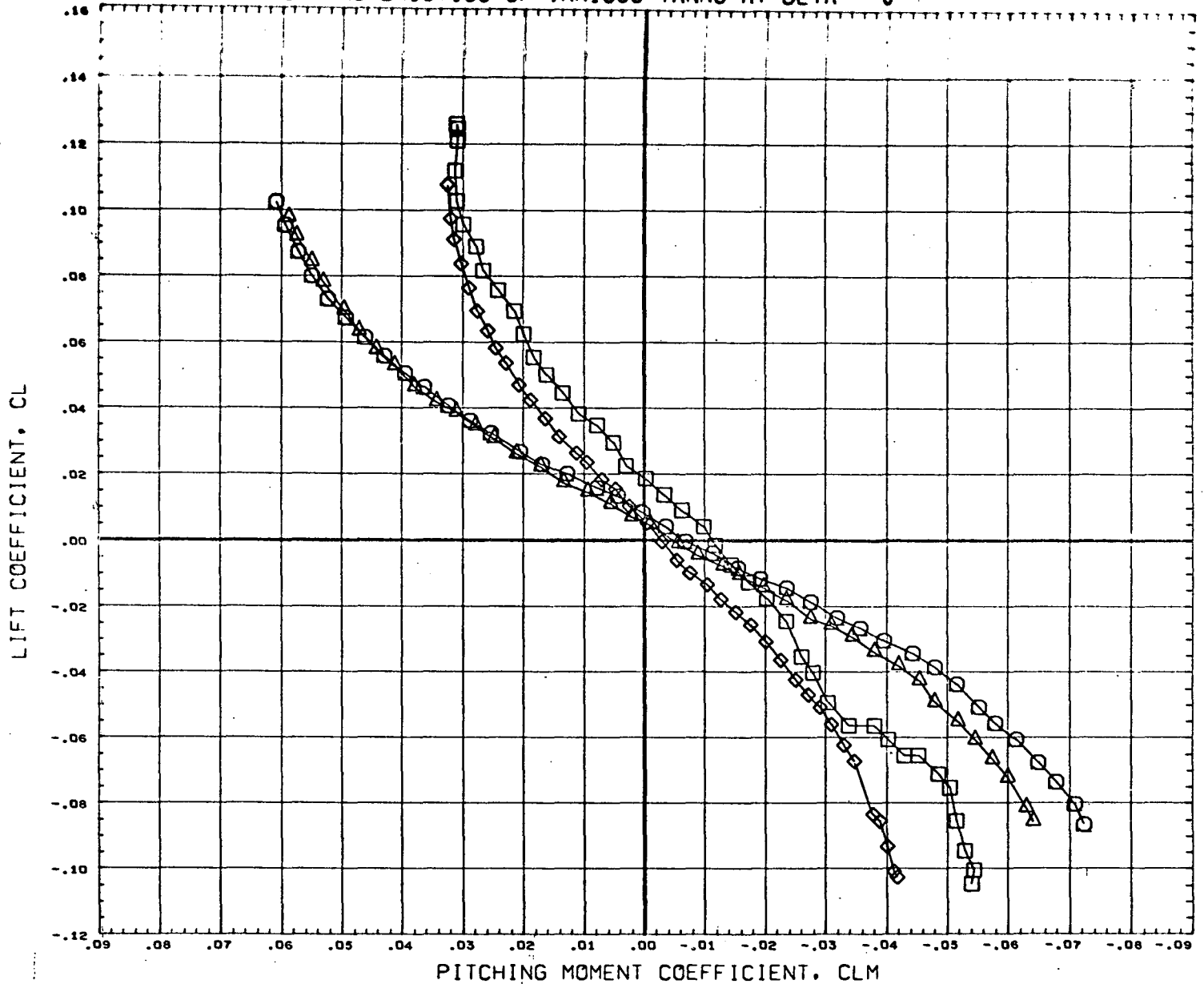
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.51

PAGE 259

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	○	MDAC S-222 TANK ALONE T1
(CD7602)	△	MDAC S-222 TANK ALONE T2
(CD7603)	◇	MDAC S-222 TANK ALONE T3
(CD7604)	□	MDAC S-222 TANK ALONE T4

BETA
0.000
0.000
0.000
0.000

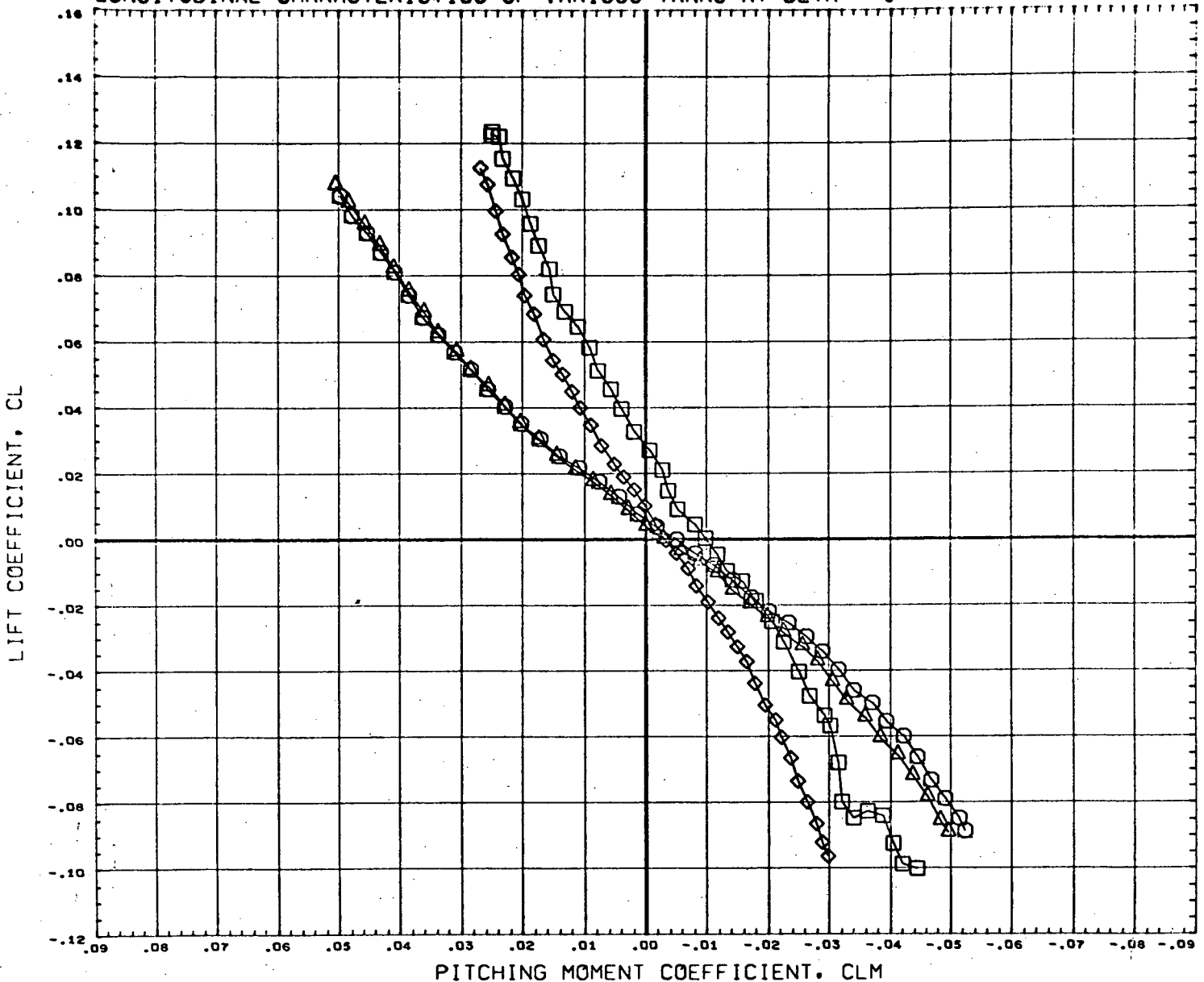
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

2.20

PAGE 260

LONGITUDINAL CHARACTERISTICS OF VARIOUS TANKS AT BETA = 0



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7601)	MDAC S-222 TANK ALONE T1
(CD7602)	MDAC S-222 TANK ALONE T2
(CD7603)	MDAC S-222 TANK ALONE T3
(CD7604)	MDAC S-222 TANK ALONE T4

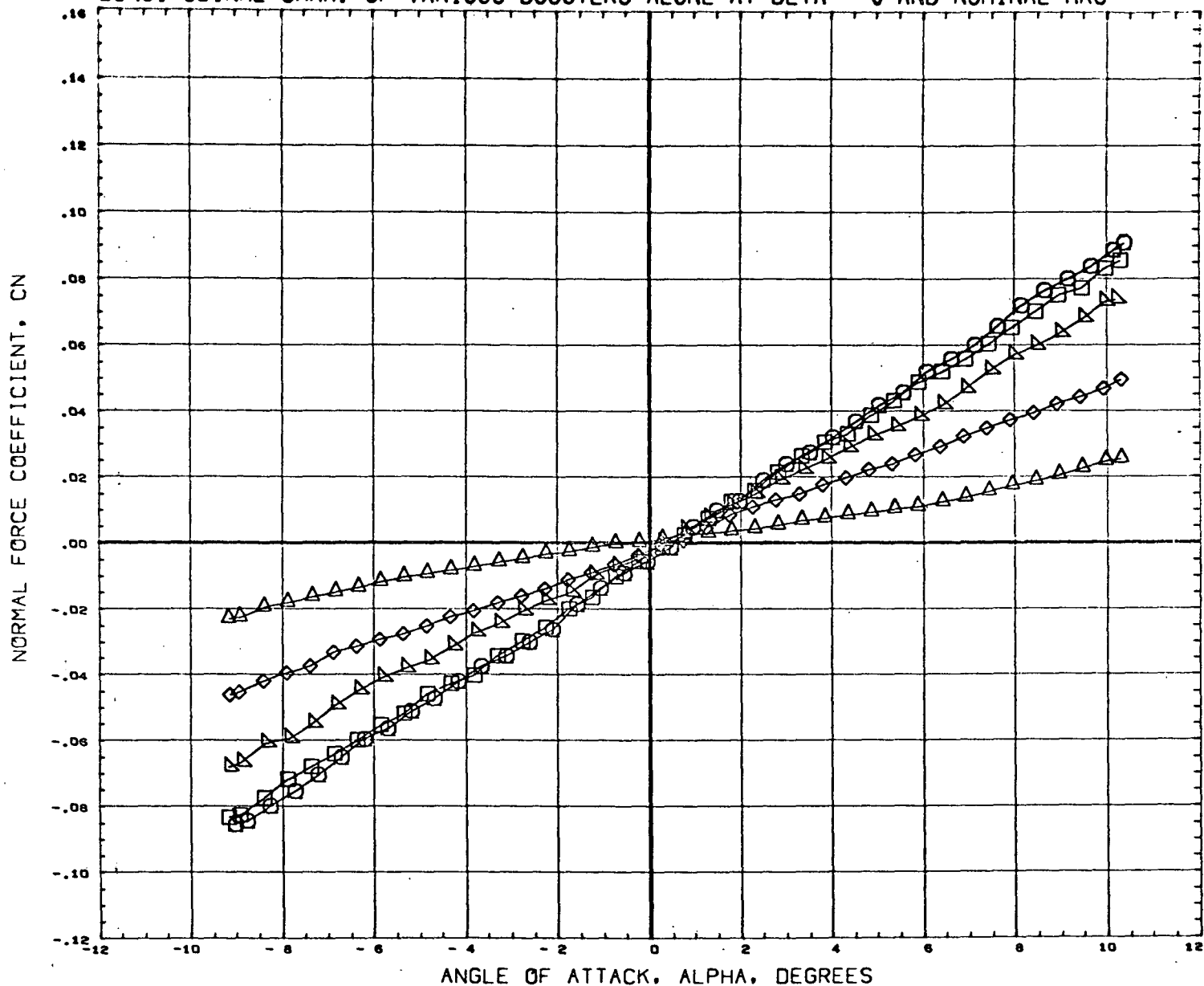
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	0.0000	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 261

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

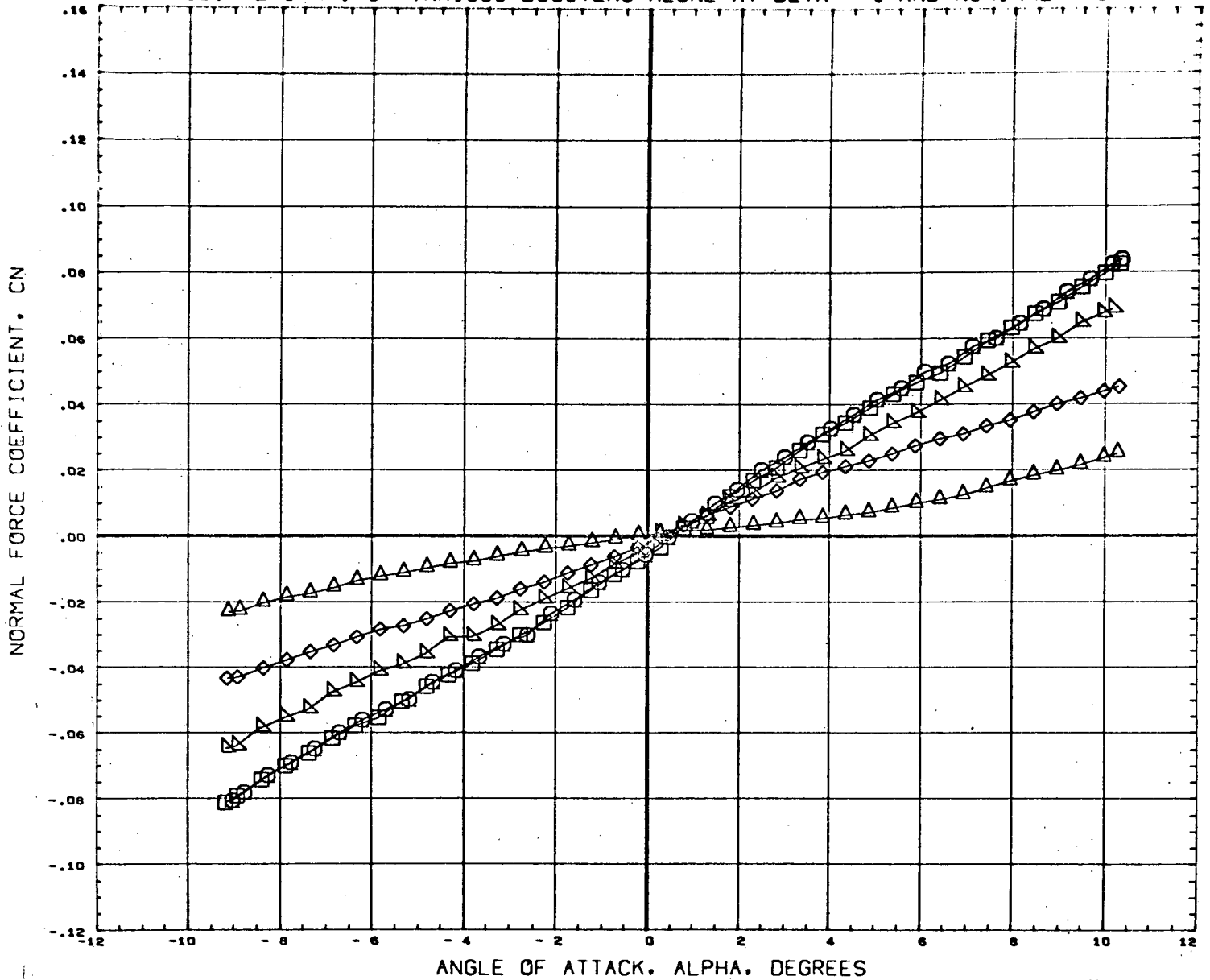
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 262

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(C07802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(C07803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(C07804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(C07805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

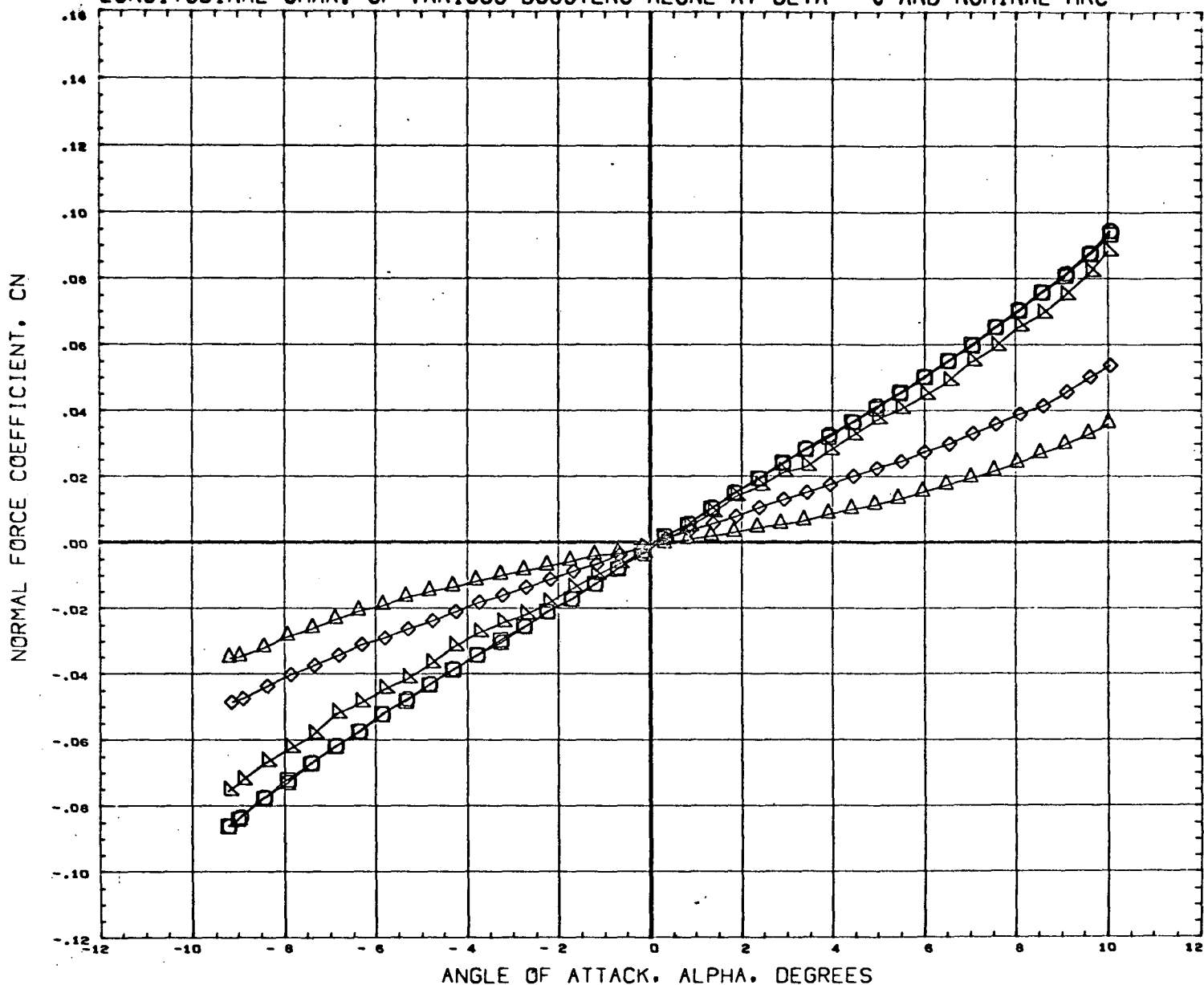
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 263

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(C07802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(C07803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(C07804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(C07805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

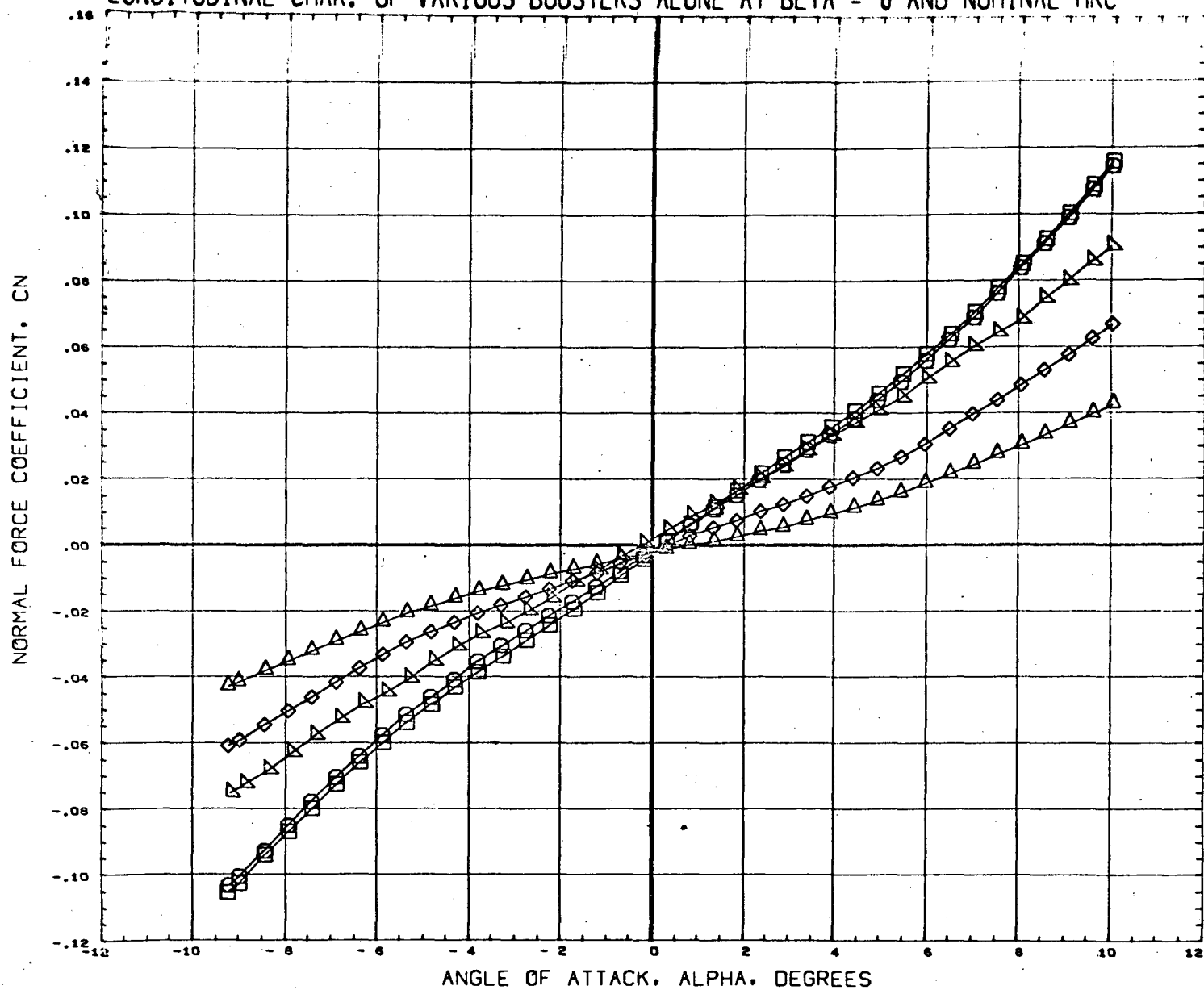
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 264

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2s
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

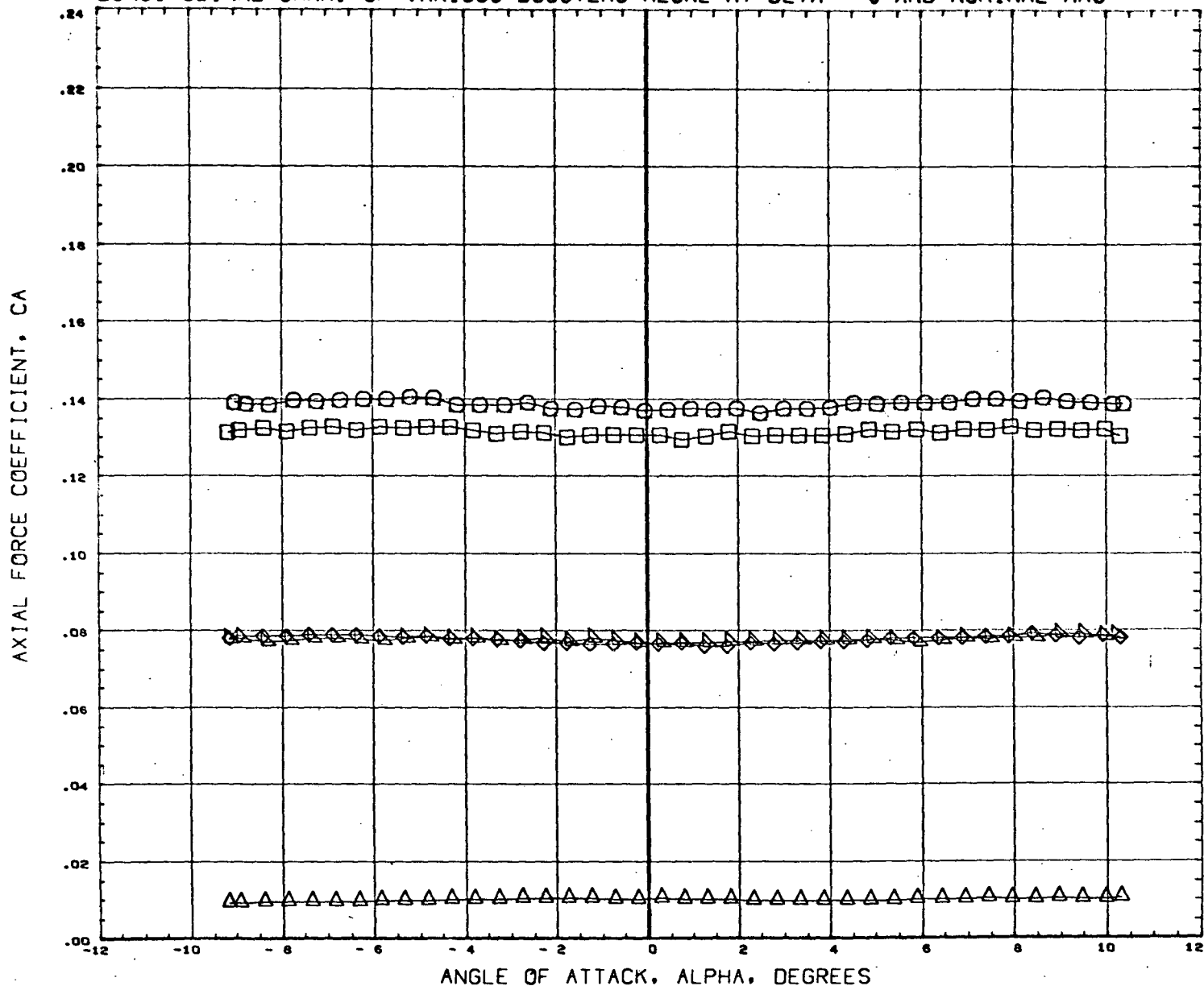
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 265

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

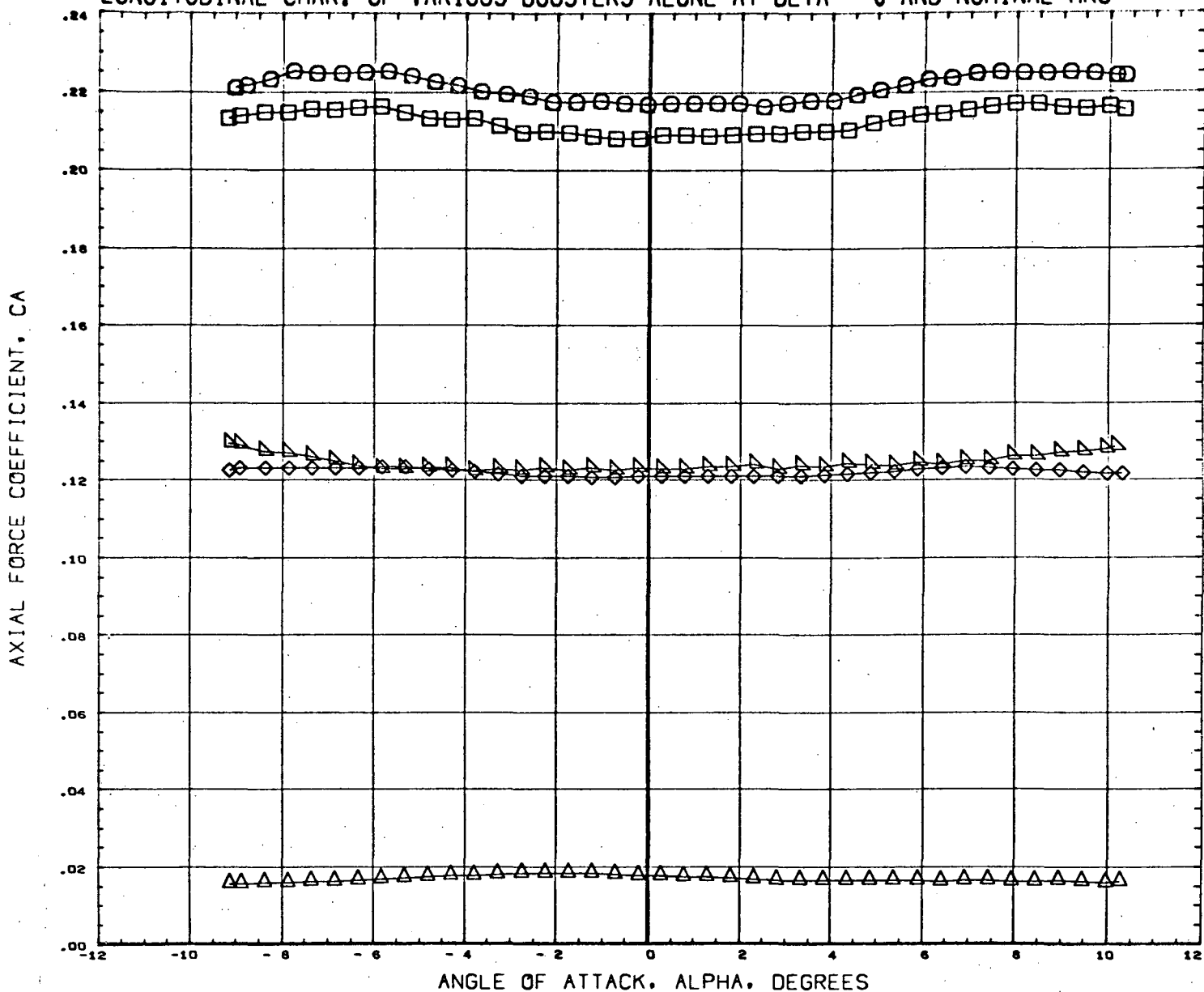


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2	0.000	LREF 609.5004 IN.
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S	0.000	BREF 882.0004 IN.
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3	0.000	XMRF 731.0004 IN.
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4	0.000	YMRF 0.0000 IN.
			ZMRF 0.0000 IN.
			SCALE 0.0060

MACH .89

PAGE 266

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

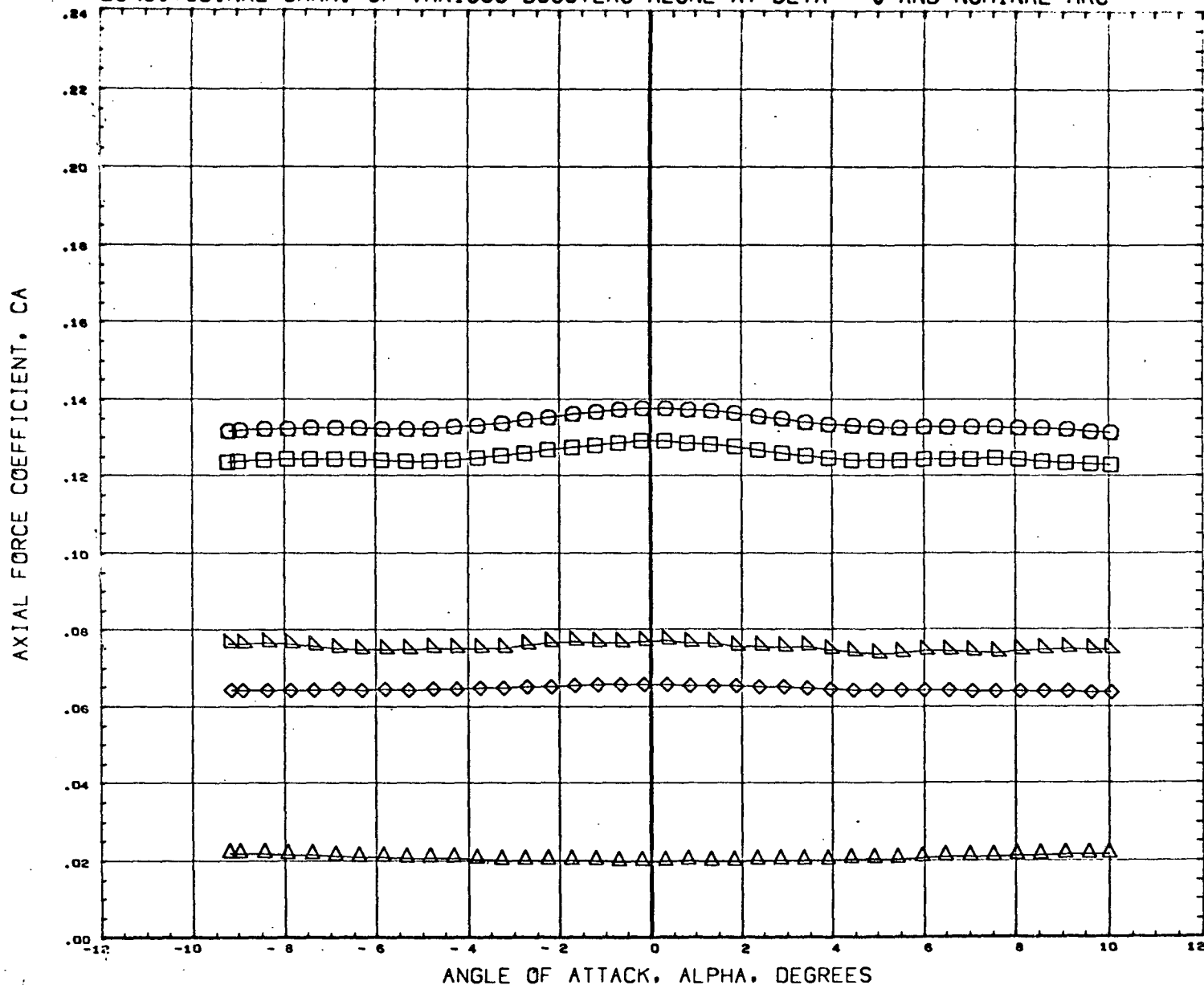
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 267

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(C07802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(C07803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(C07804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(C07805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

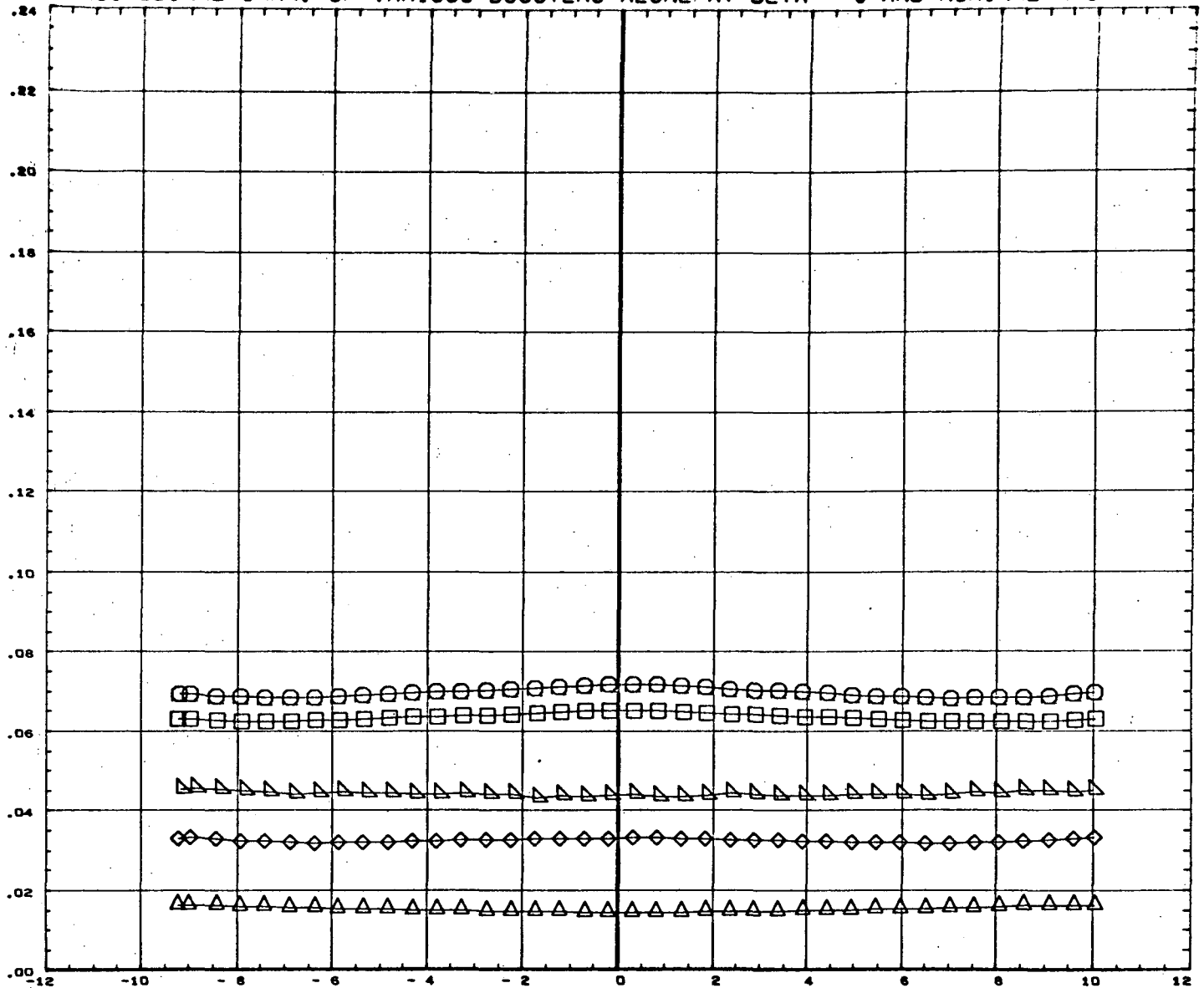
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 268

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

AXIAL FORCE COEFFICIENT, CA

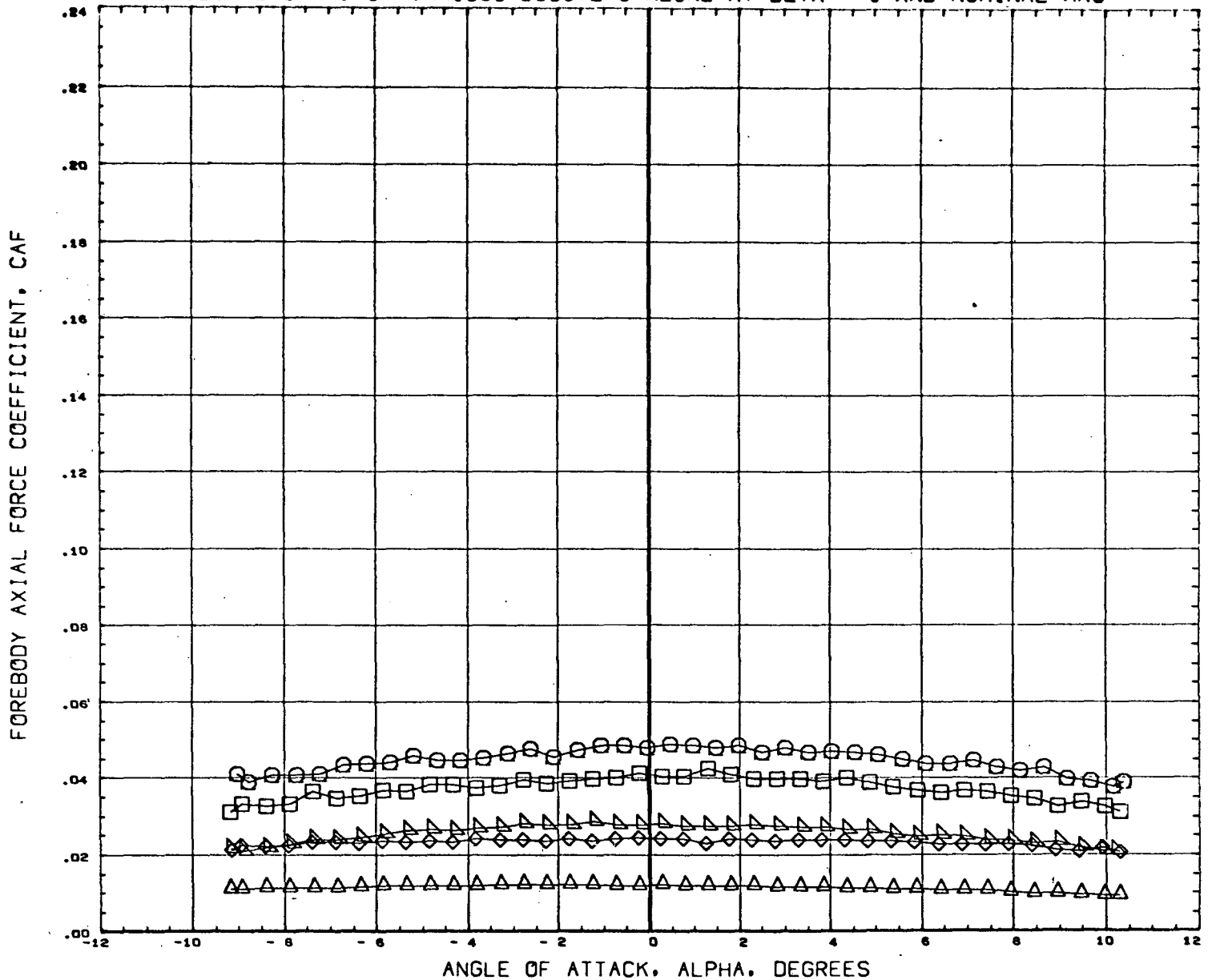


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION	
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) 81	0.000	SREF	3155.3040 SQ.FT.
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) 82	0.000	LREF	609.3004 IN.
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) 82S	0.000	BREF	862.0004 IN.
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) 83	0.000	XMRP	731.0004 IN.
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) 84	0.000	YMRP	0.0000 IN.
			ZMRP	0.0000 IN.
			SCALE	0.0060

MACH 4.47

PAGE 269

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

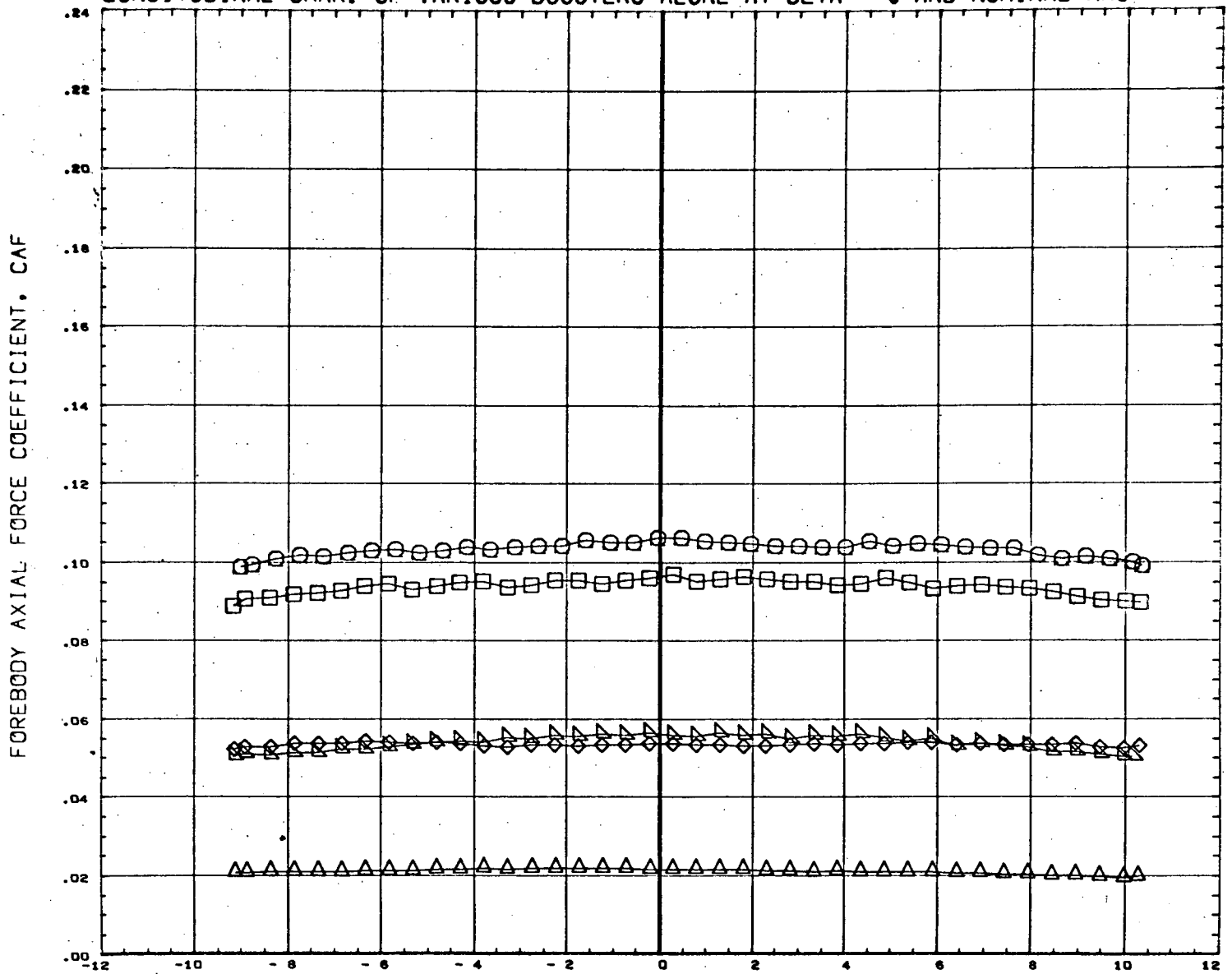
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 270

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

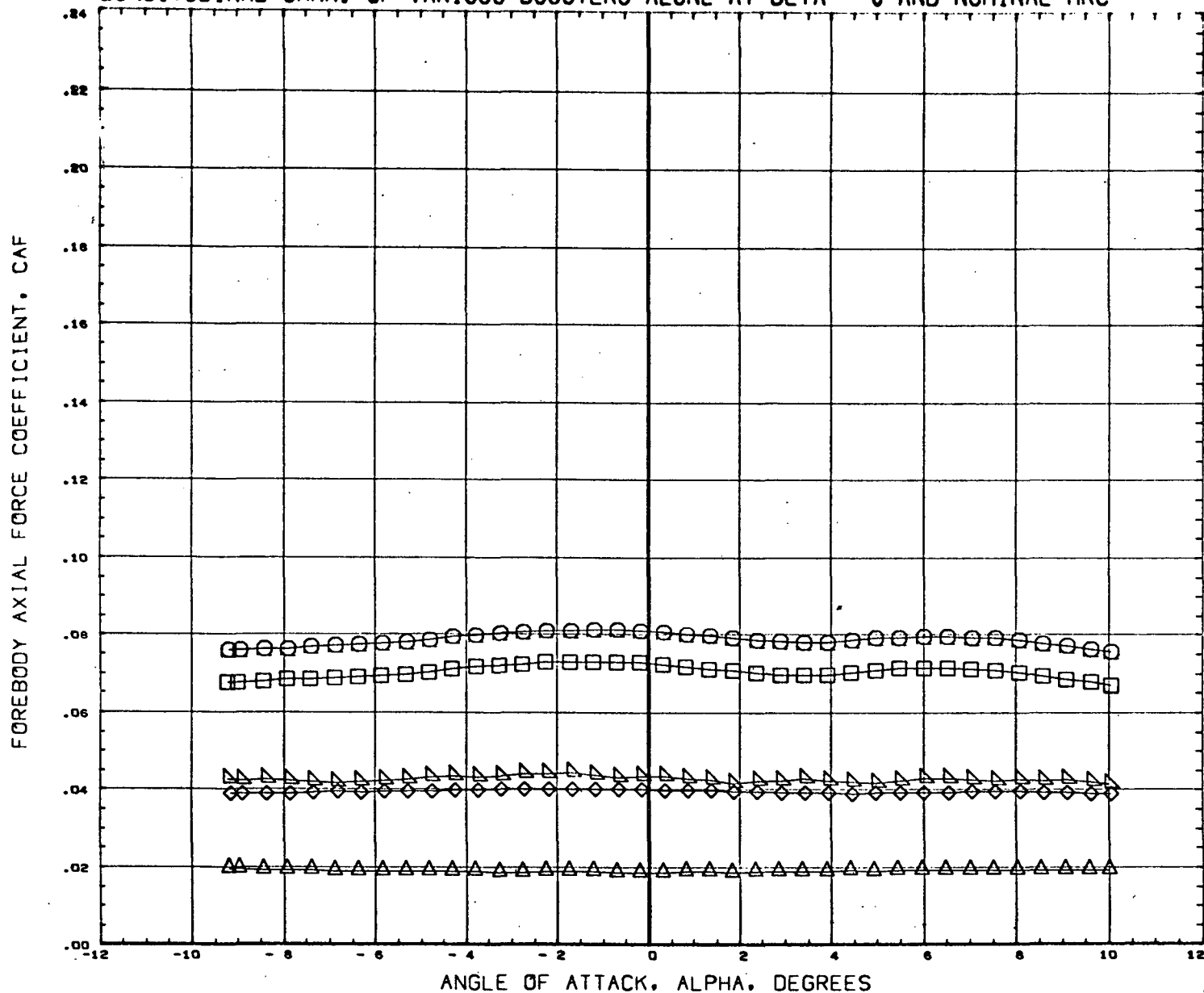


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION	
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1	0.000	SREF	3155.3040 SQ.FT.
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2	0.000	LREF	609.5004 IN.
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S	0.000	BREF	882.0004 IN.
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3	0.000	XMRP	731.0004 IN.
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4	0.000	YMRP	0.0000 IN.
			ZMRP	0.0000 IN.
			SCALE	0.0060

MACH 1.08

PAGE 271

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

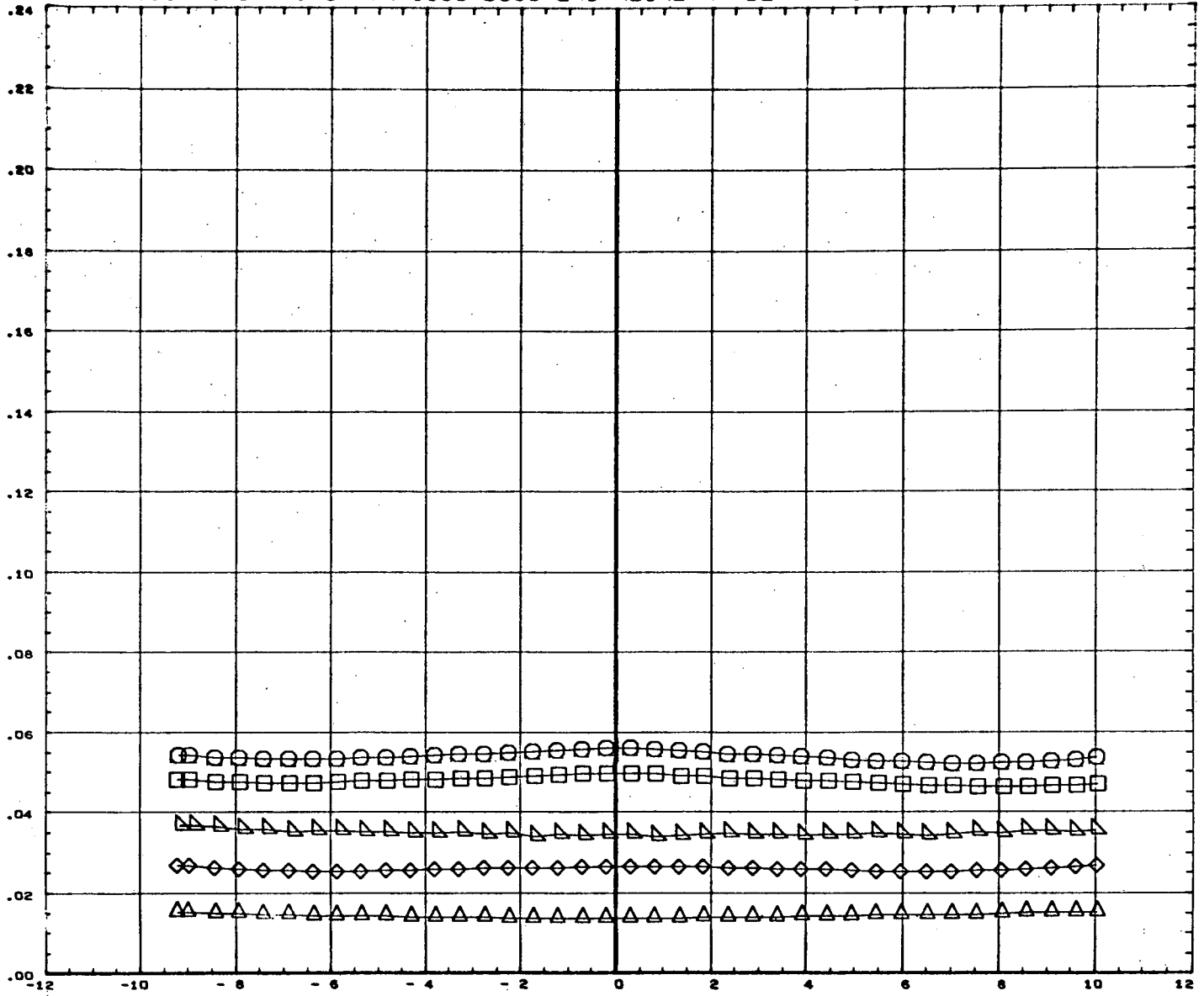
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 272

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF

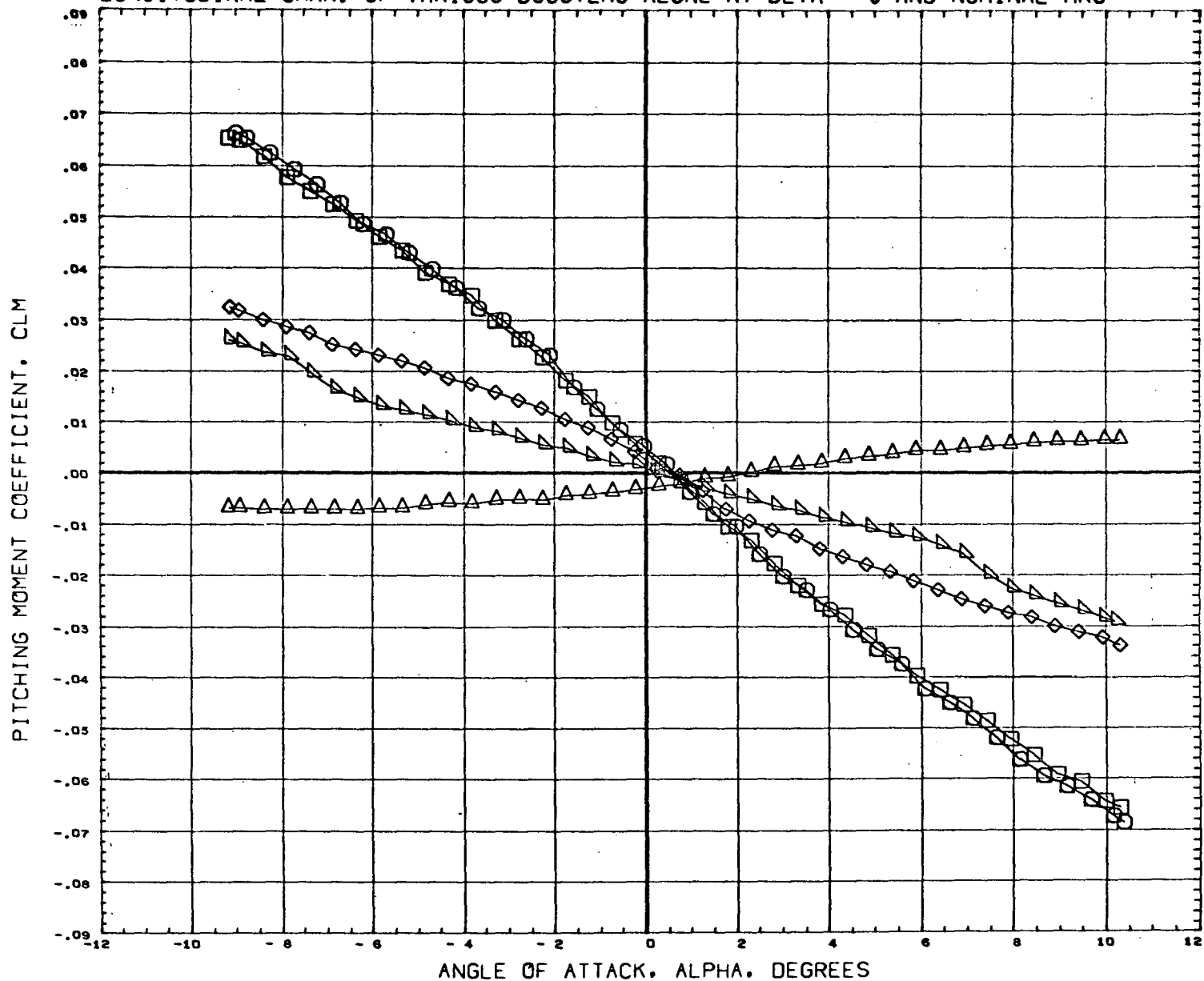


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(C07801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1	0.000	SREF 3155.3040 SQ.FT.
(C07802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2	0.000	LREF 609.5004 IN.
(C07803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S	0.000	BREF 882.0004 IN.
(C07804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3	0.000	XMRP 731.0004 IN.
(C07805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4	0.000	YMRP 0.0000 IN.
			ZMRP 0.0000 IN.
			SCALE 0.0060

MACH 4.47

PAGE 273

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

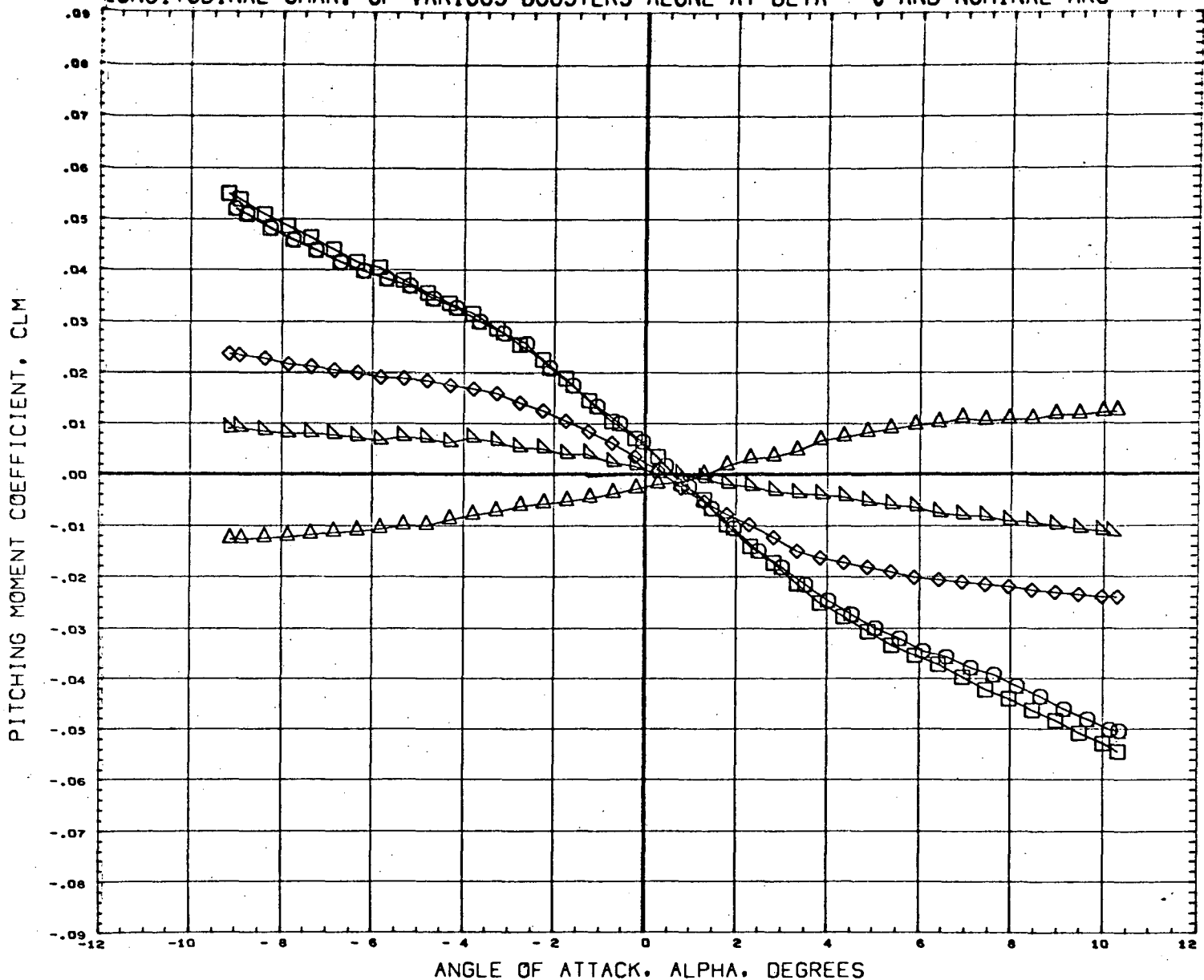
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 274

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7801) MDAC S-222 BOOSTER ALONE (NOM. CG) B1

(CD7802) MDAC S-222 BOOSTER ALONE (NOM. CG) B2

(CD7803) MDAC S-222 BOOSTER ALONE (NOM. CG) B2S

(CD7804) MDAC S-222 BOOSTER ALONE (NOM. CG) B3

(CD7805) MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA

0.000

0.000

0.000

0.000

0.000

REFERENCE INFORMATION

SREF 3155.3040 SQ.FT.

LREF 609.5004 IN.

BREF 882.0004 IN.

XMRP 731.0004 IN.

YMRP 0.0000 IN.

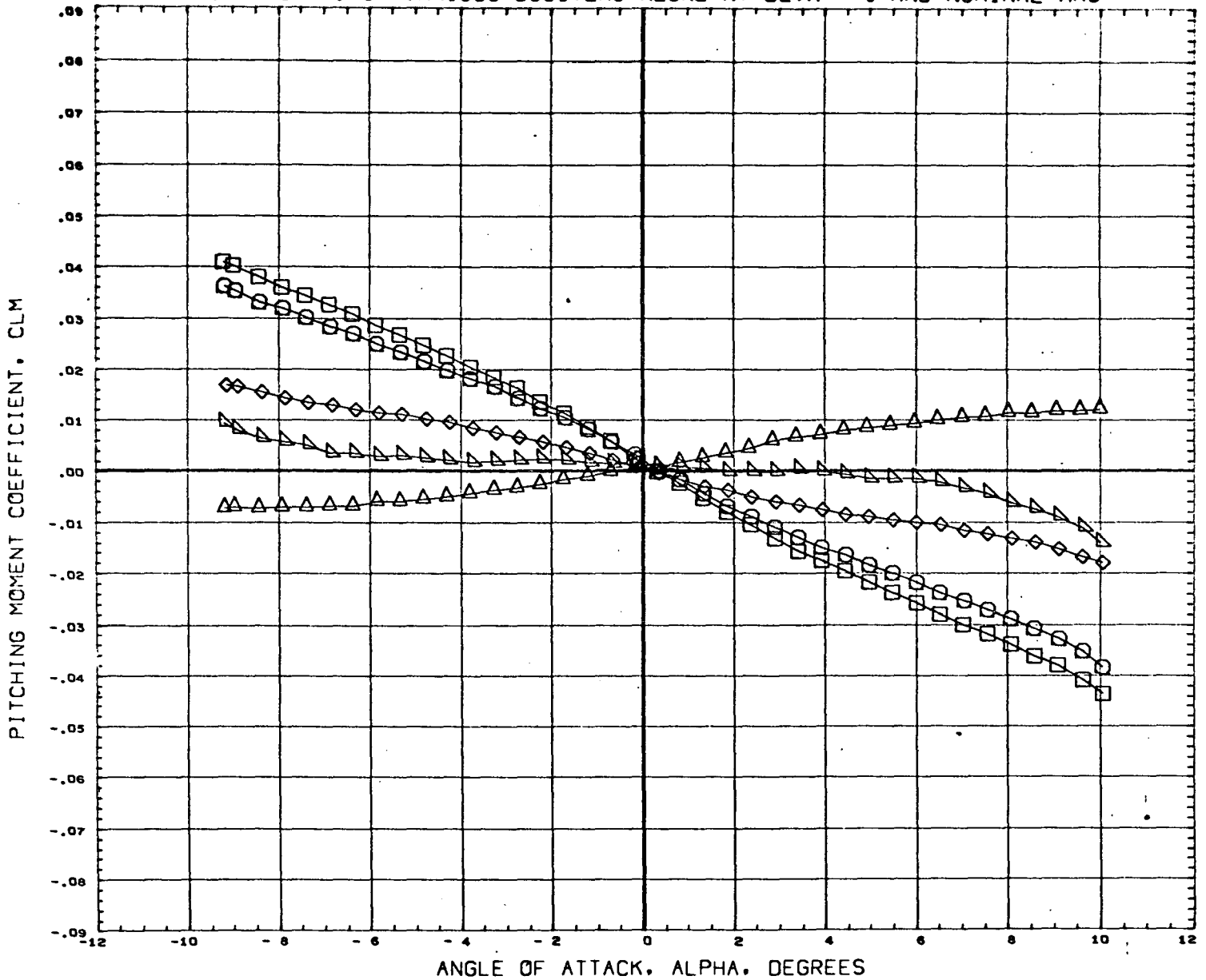
ZMRP 0.0000 IN.

SCALE 0.0060

MACH 1.08

PAGE 275

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

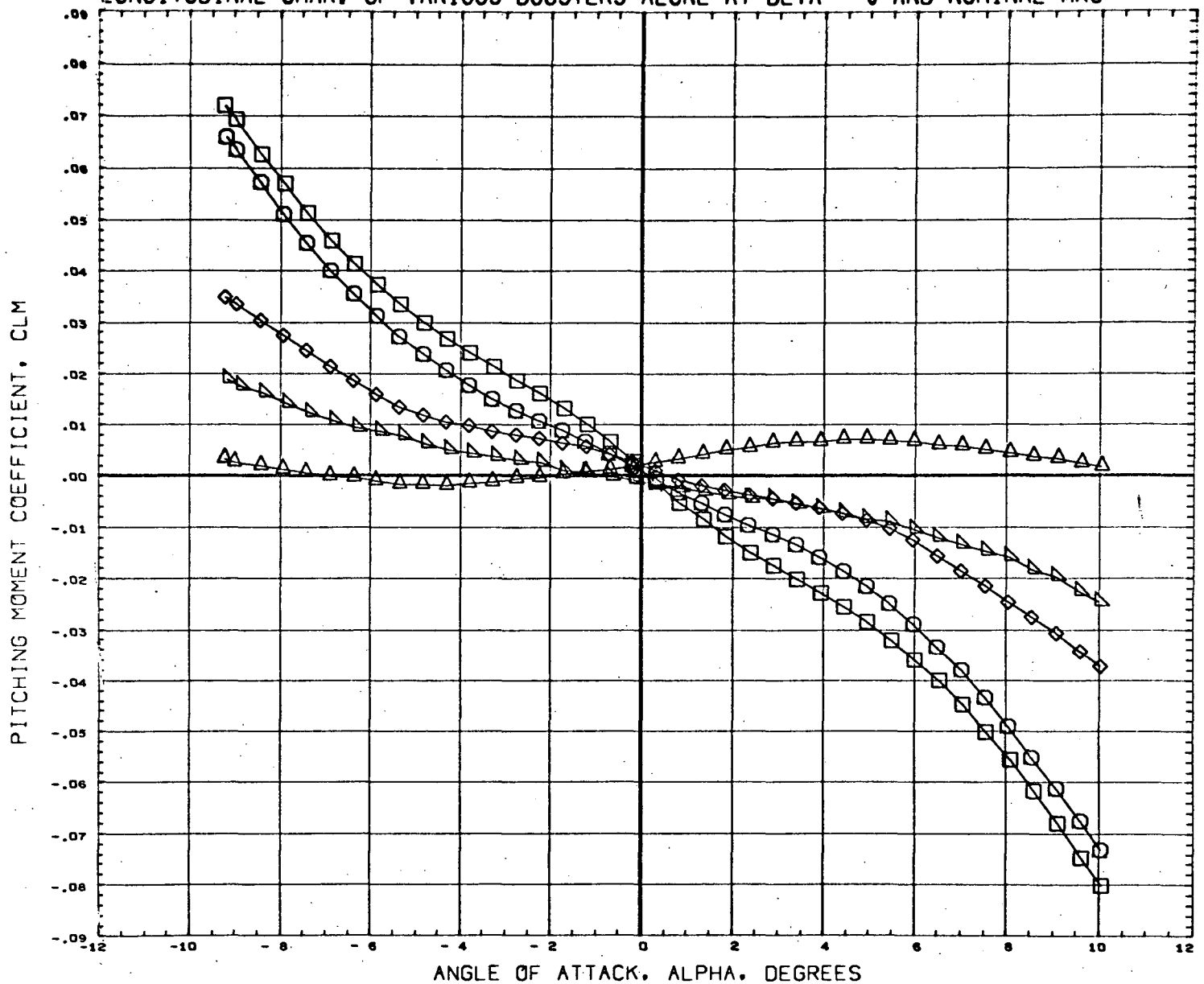
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 276

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

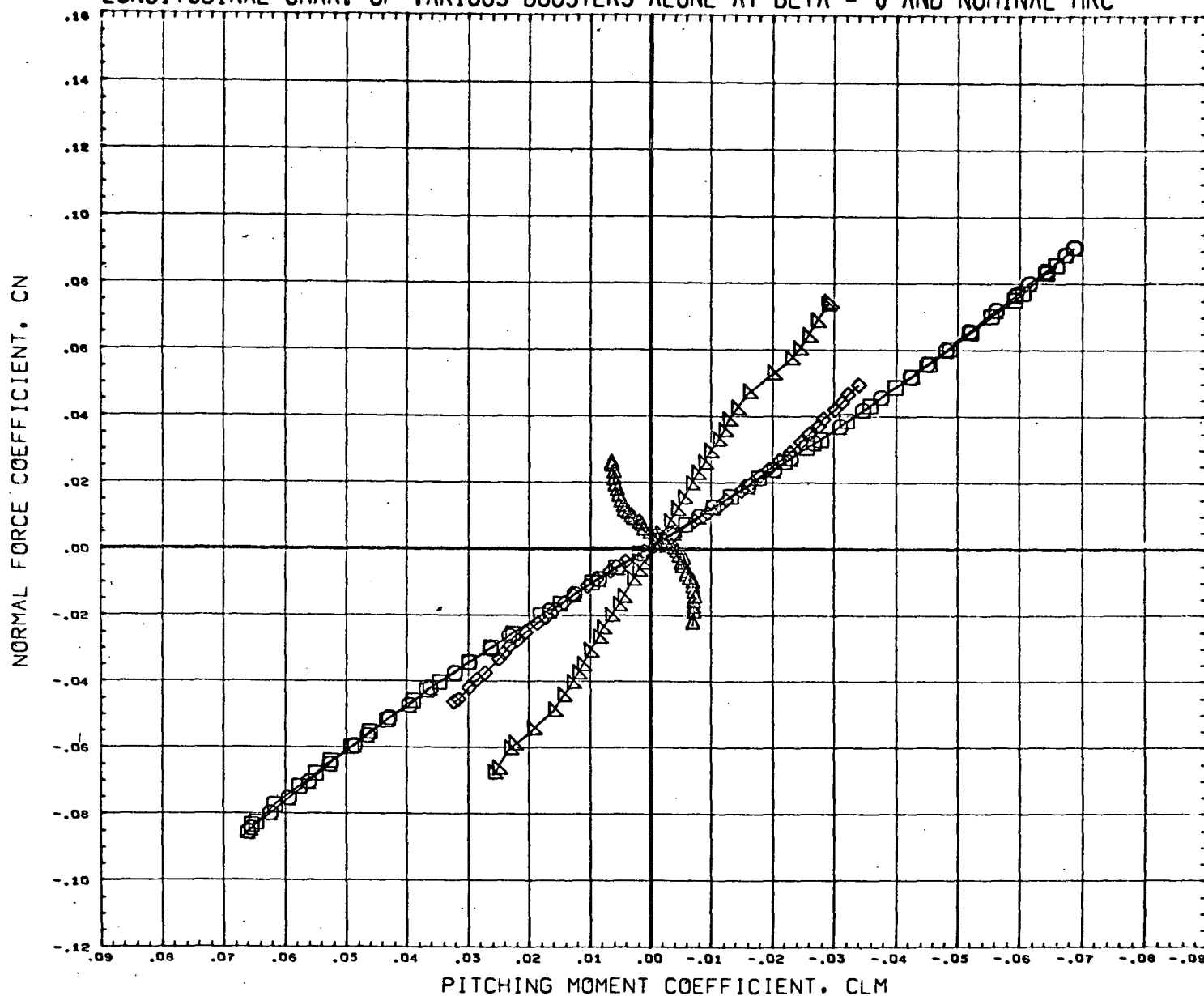
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 277

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

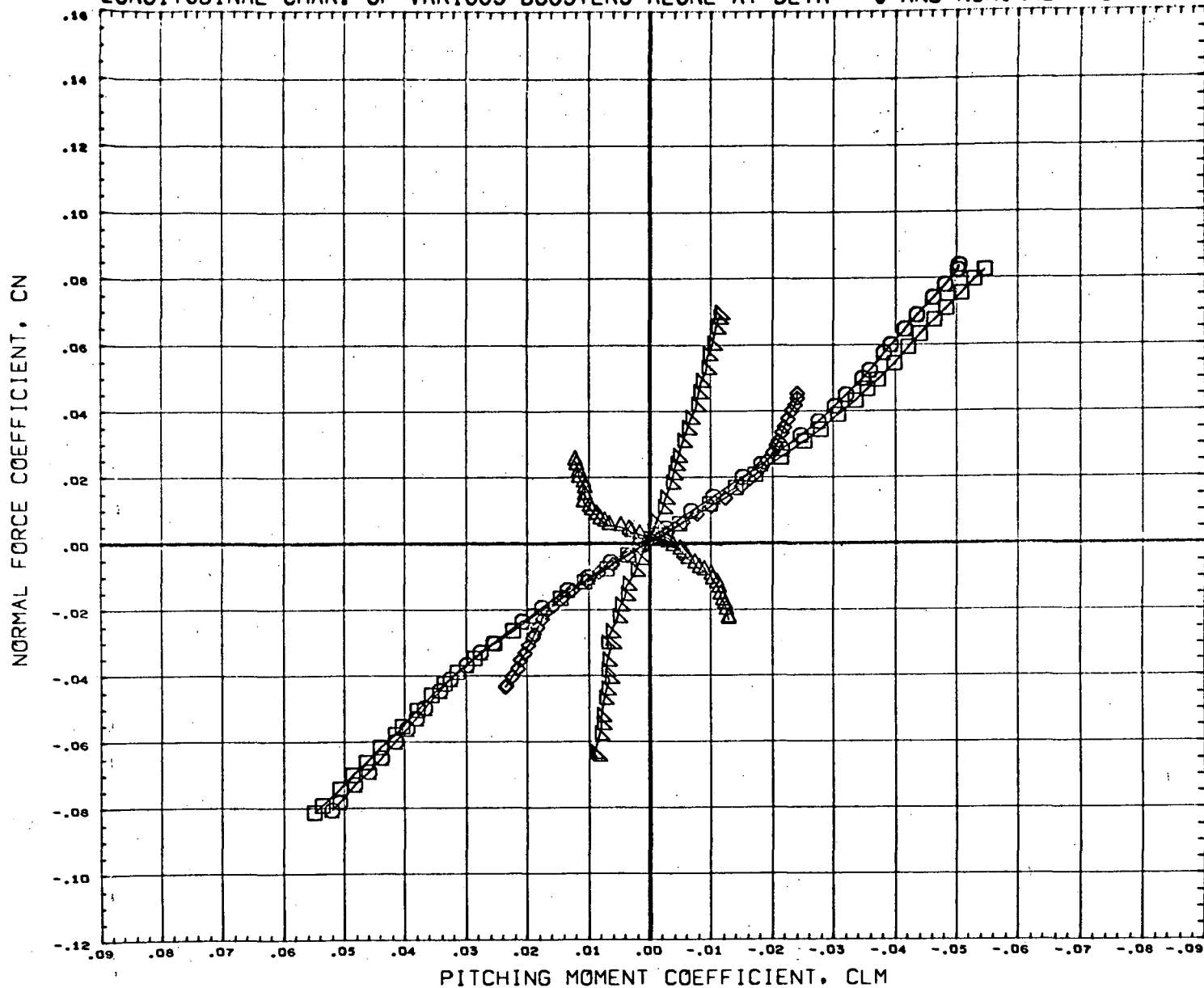


DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	□	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	△	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	○	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	×	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 731.0004 IN.
YMRP 0.0000 IN.
ZMRP 0.0000 IN.
SCALE 0.0060

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

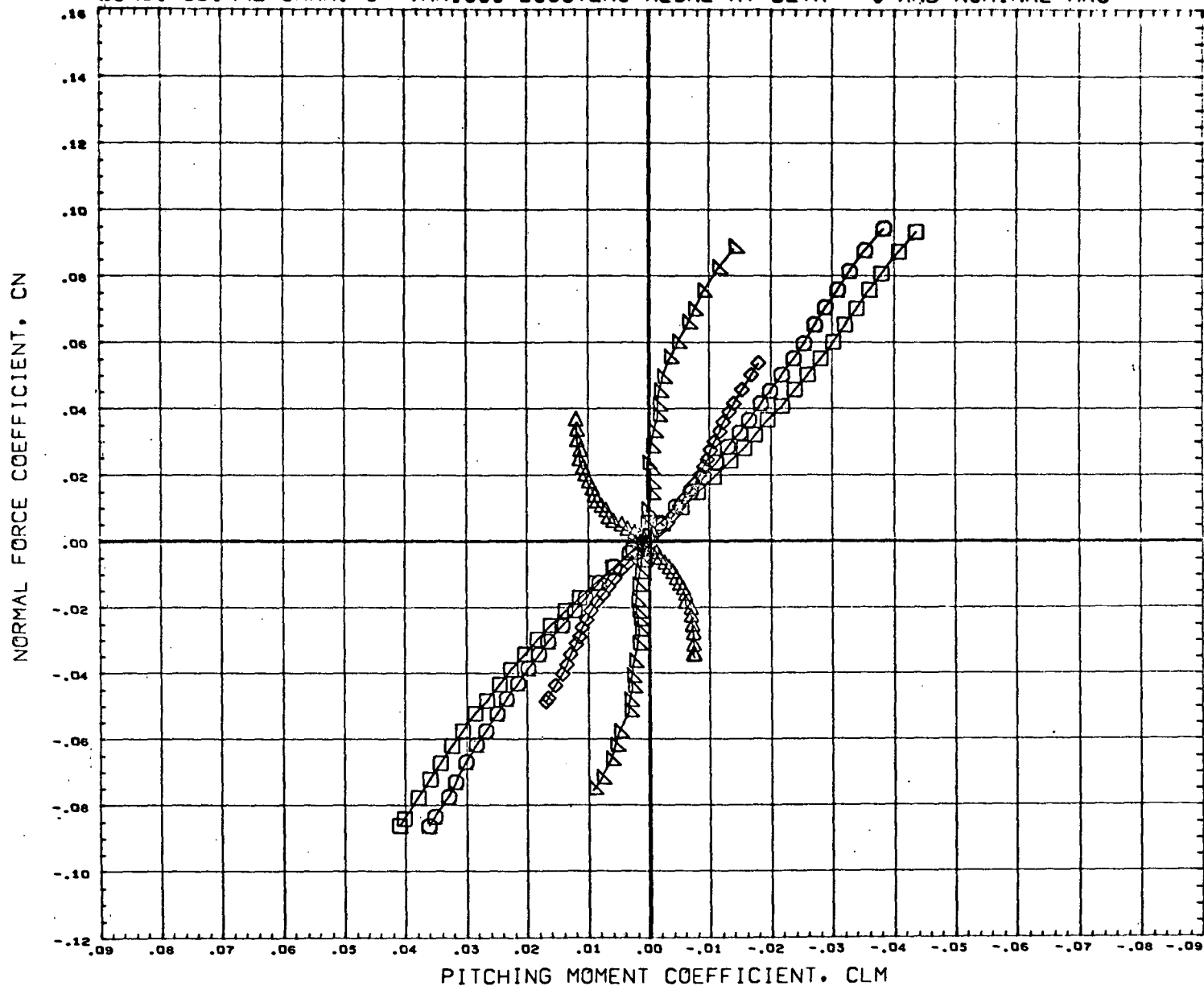
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 279

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

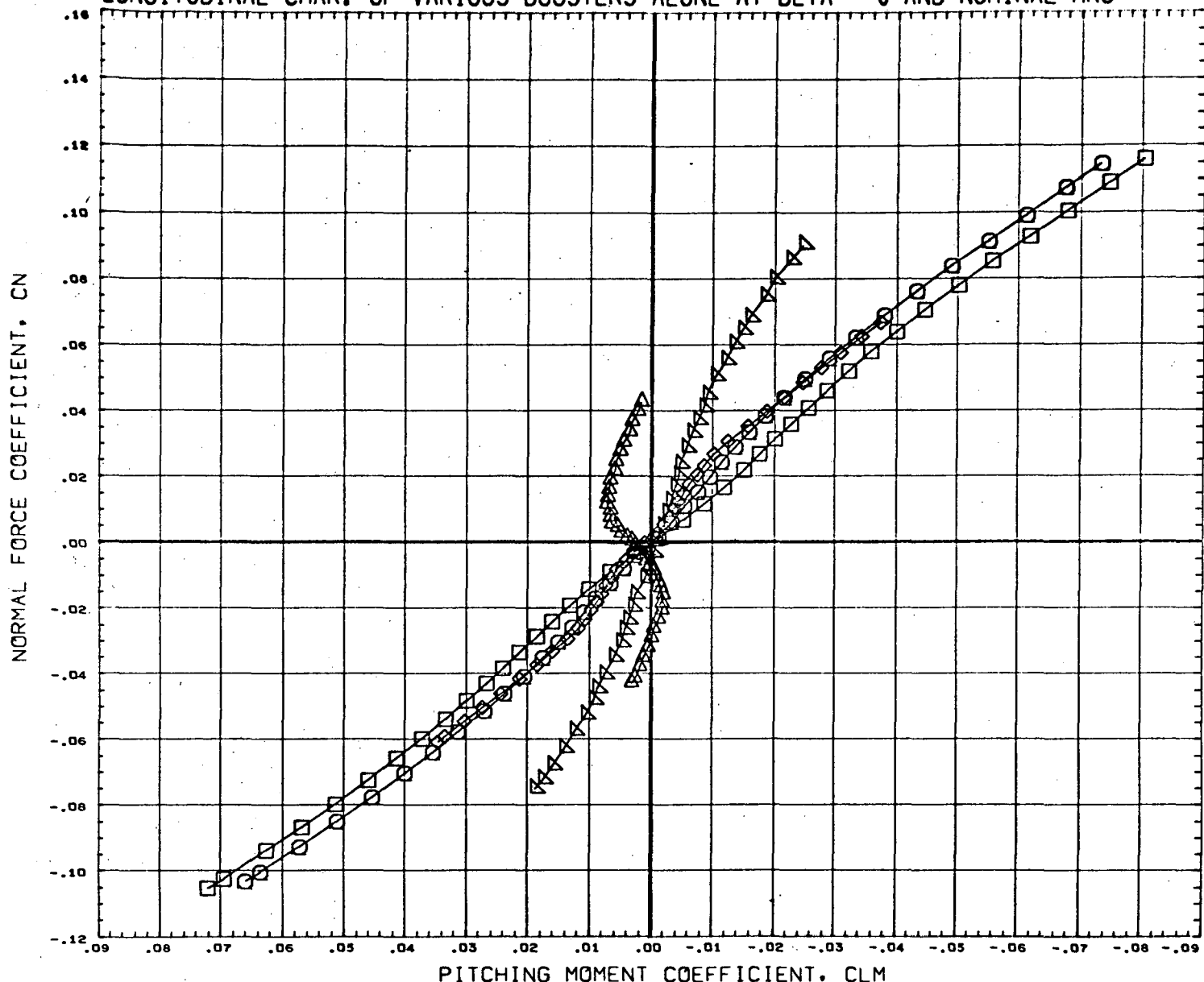
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH

2.20

PAGE 280

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

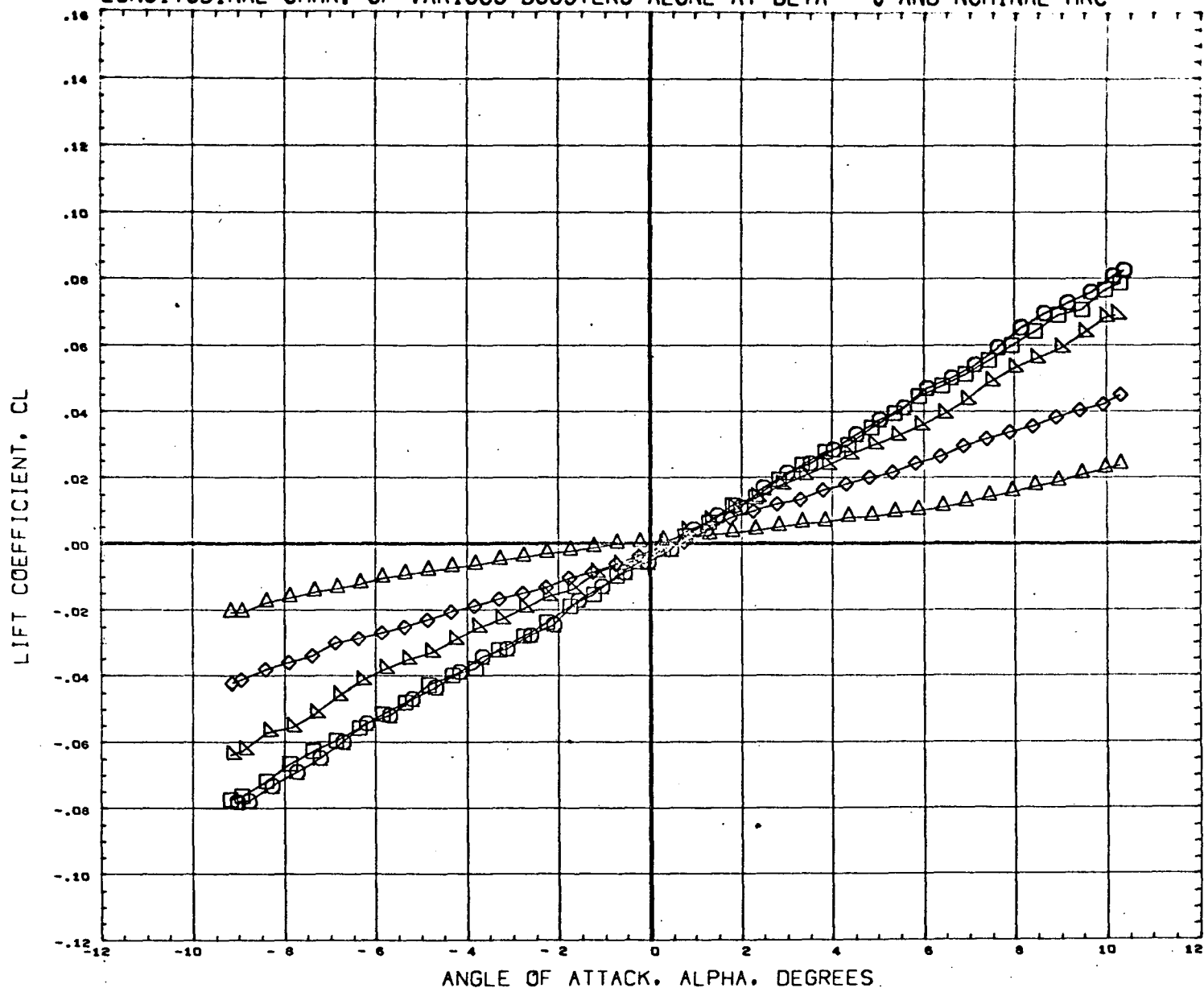
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	sq.ft.
LREF	609.5004	in.
BREF	882.0004	in.
XMRP	731.0004	in.
YMRP	0.0000	in.
ZMRP	0.0000	in.
SCALE	0.0060	

MACH 4.47

PAGE 281

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

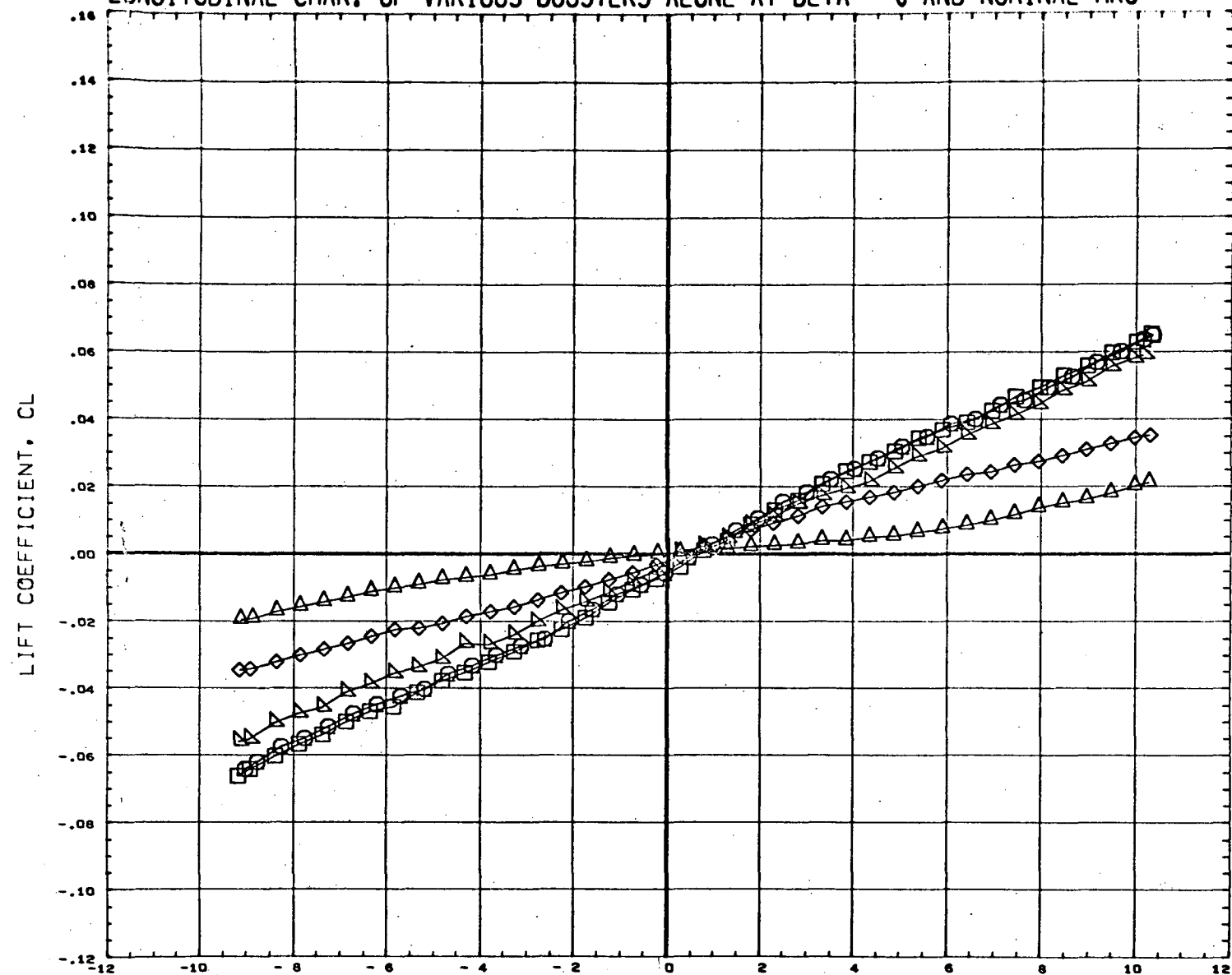
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH

.89

PAGE 282

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

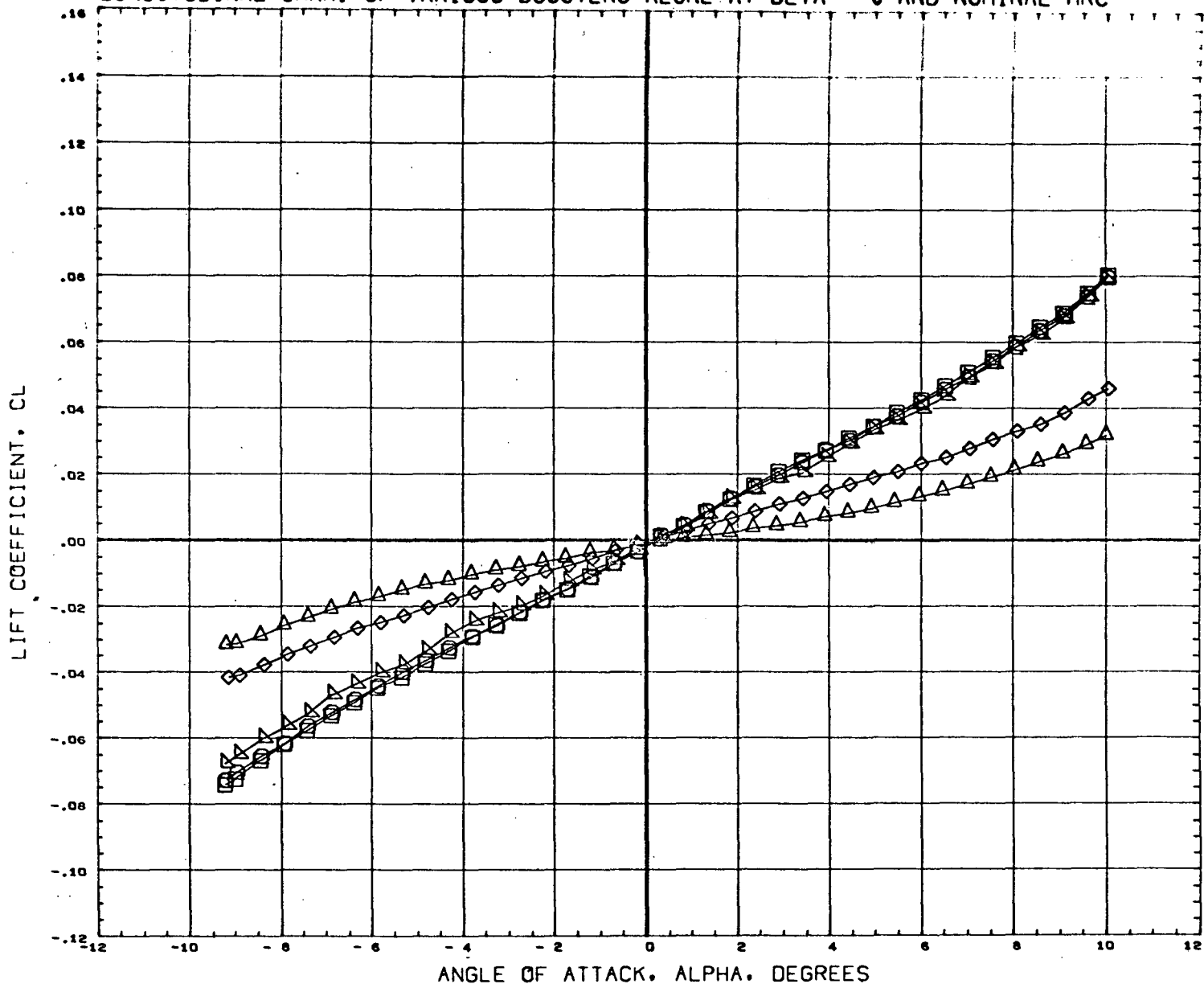
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 283

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

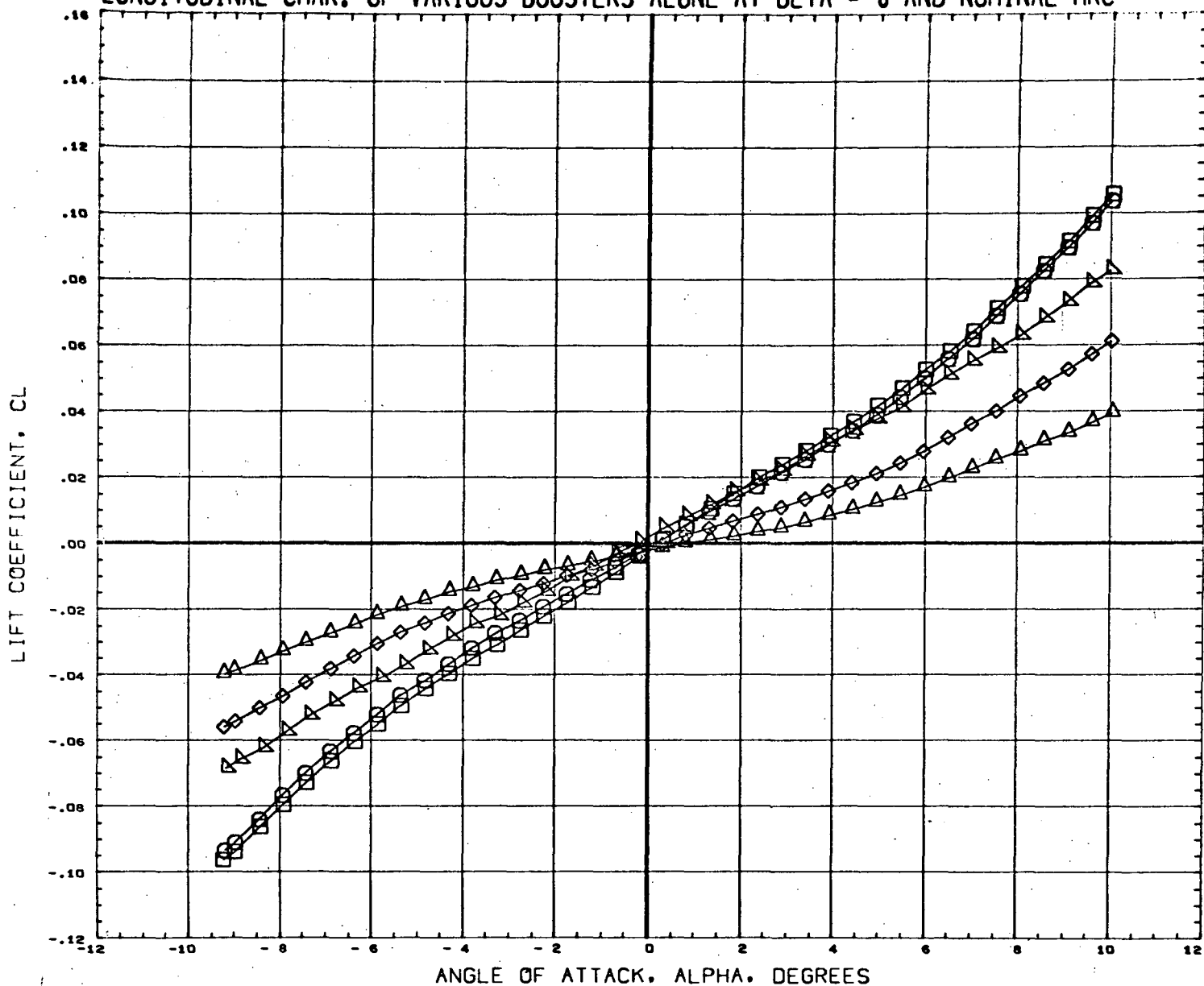
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 284

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

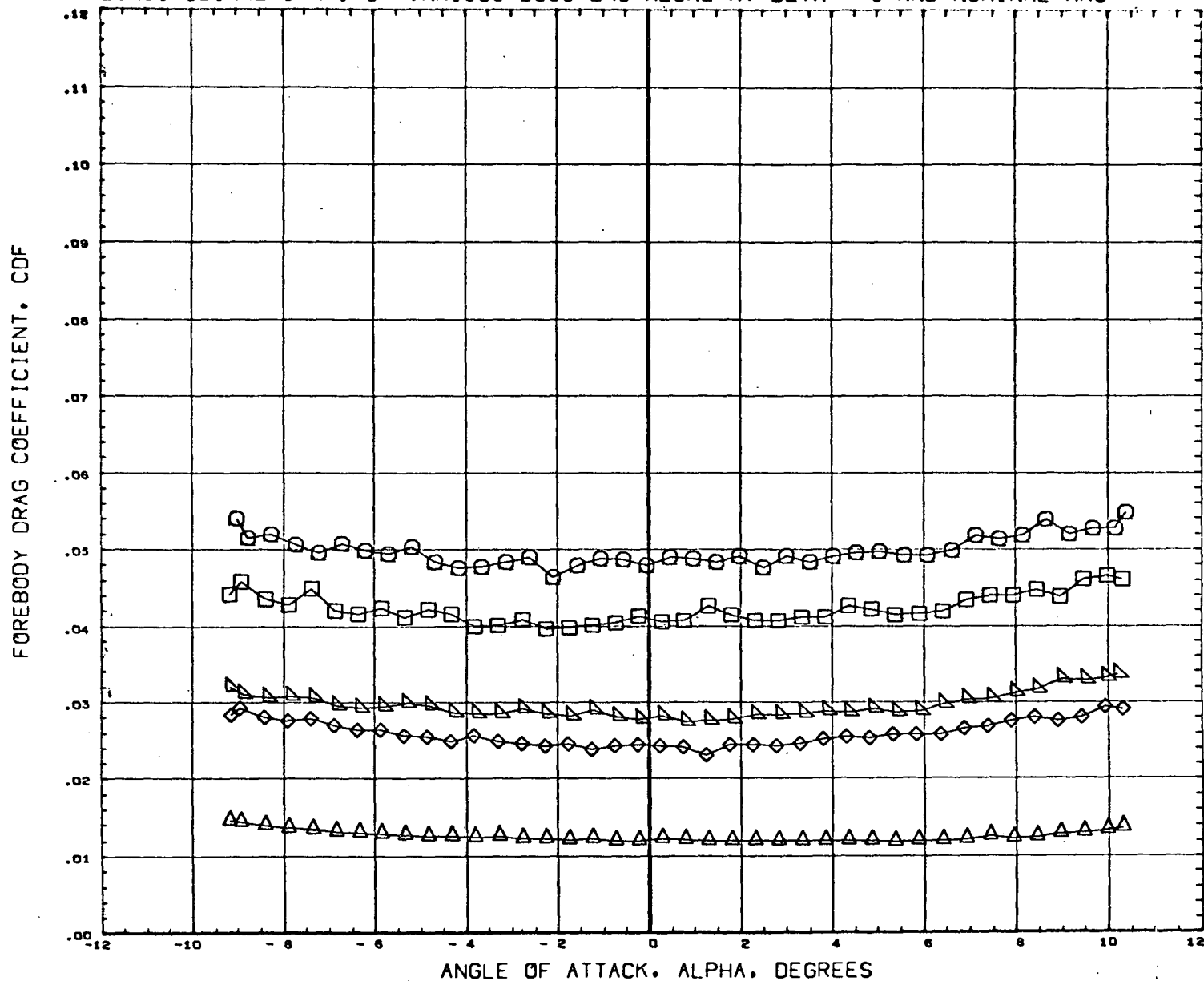
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 285

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

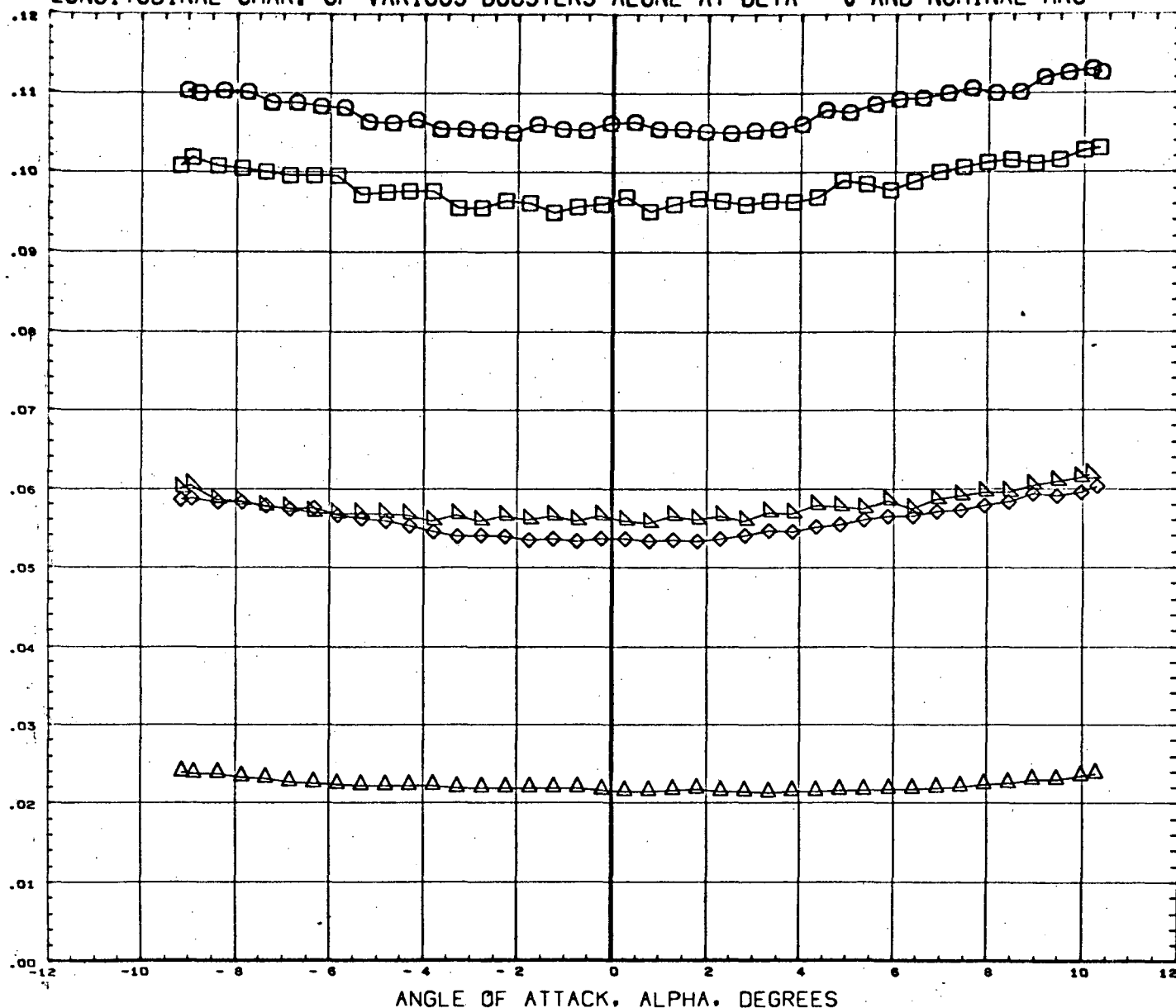
REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 286

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

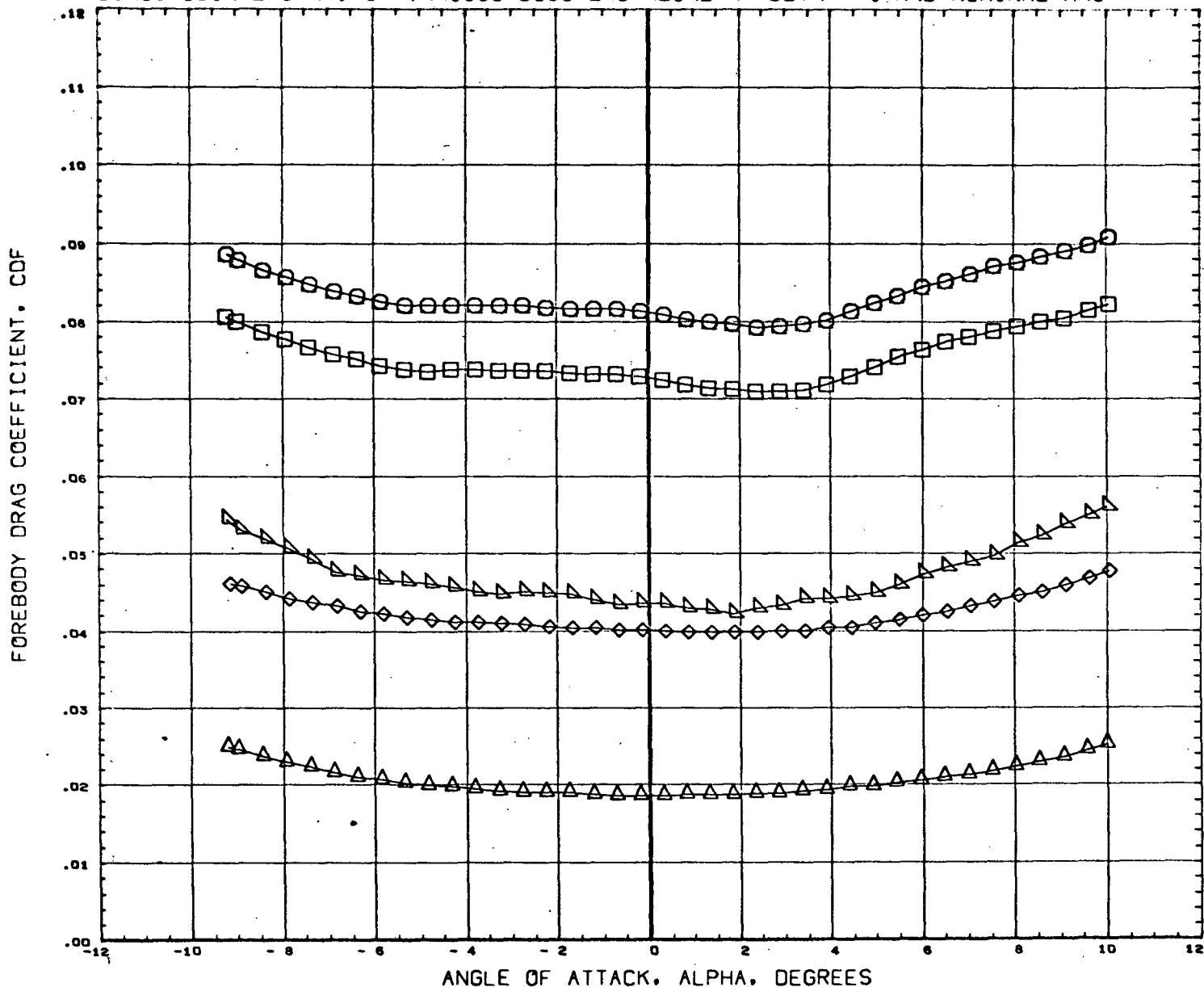
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0060

MACH 1.08

PAGE 287

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

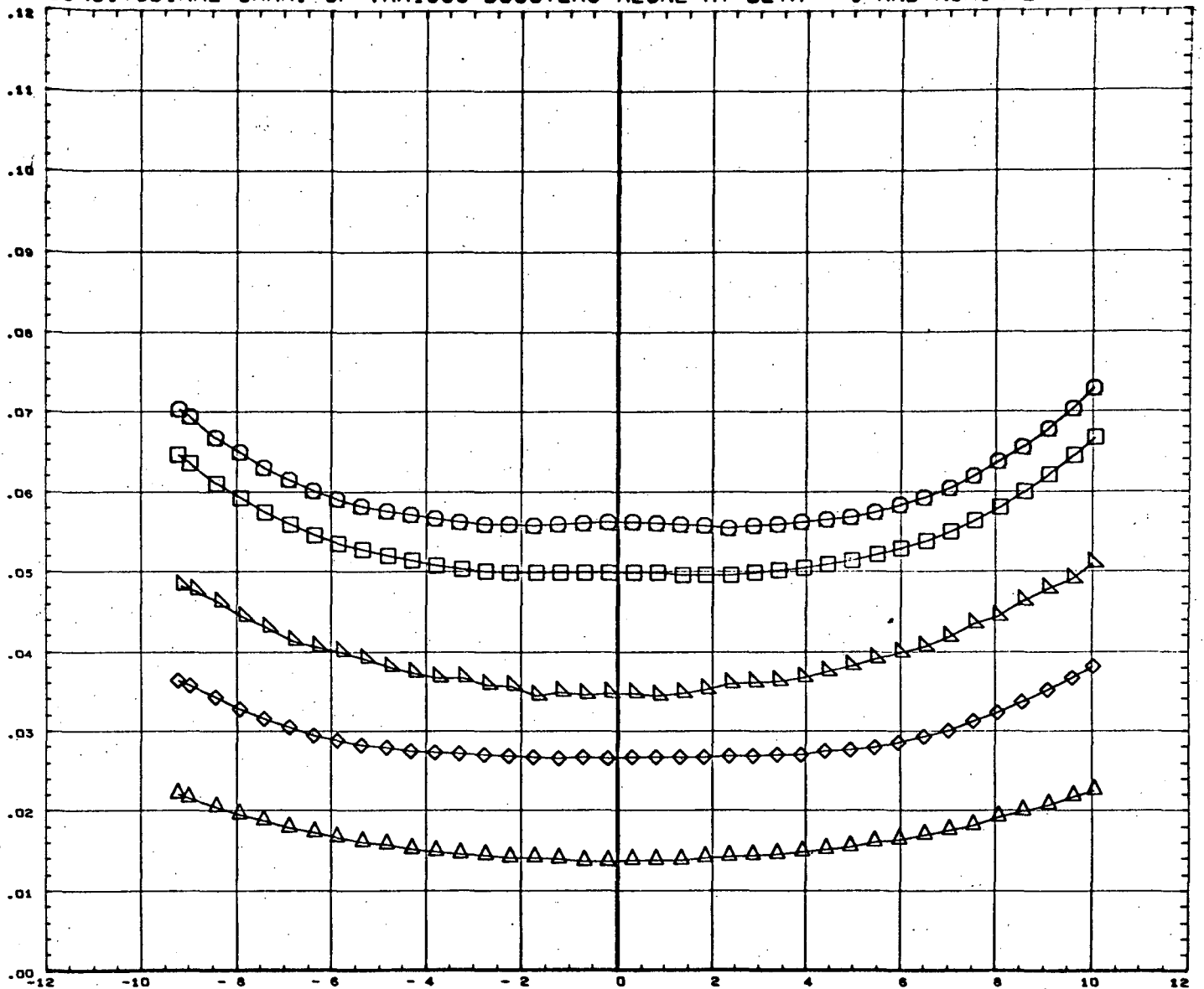
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 288

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

FOREBODY DRAG COEFFICIENT, COF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

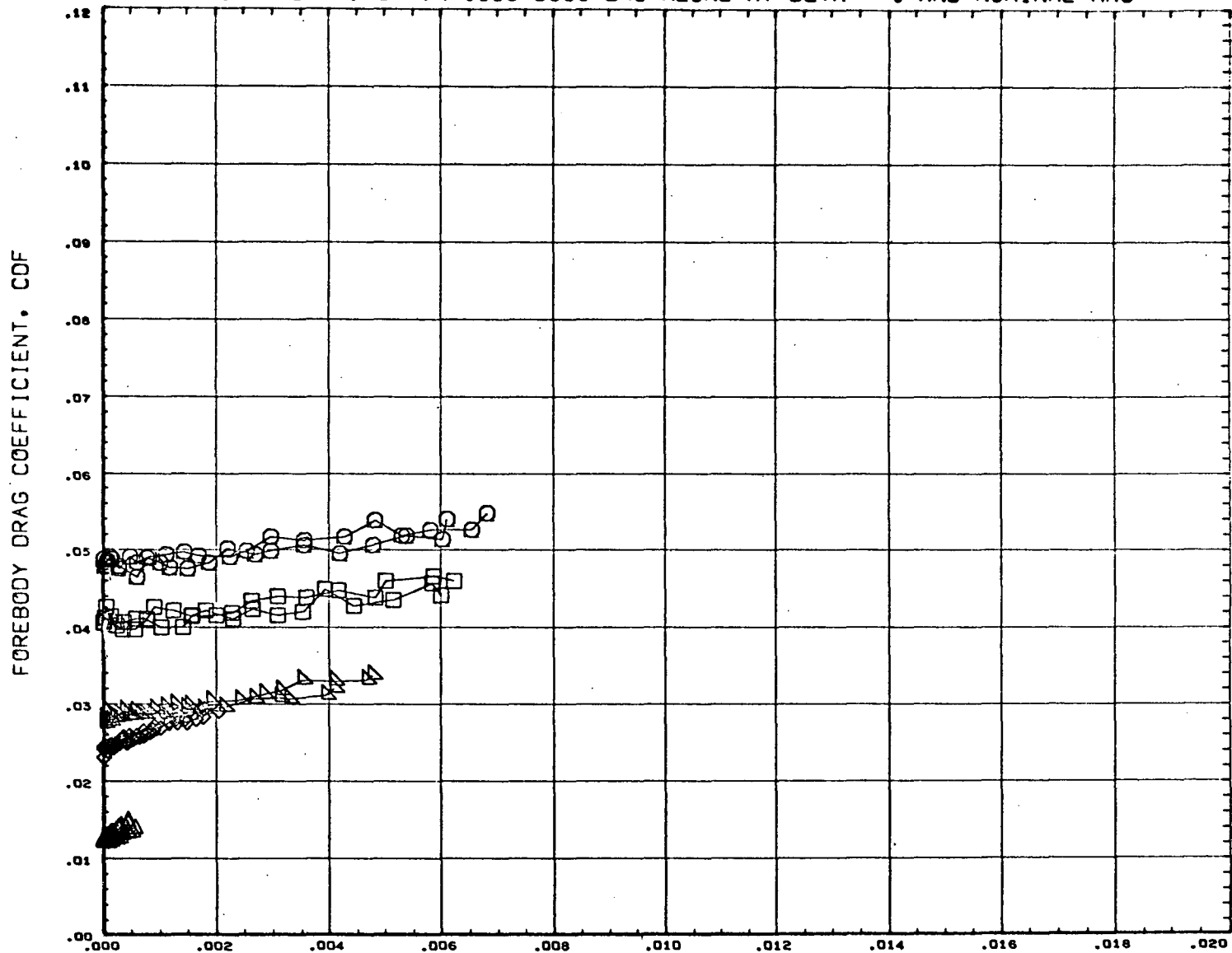
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 289

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



LIFT COEFFICIENT SQUARED. CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

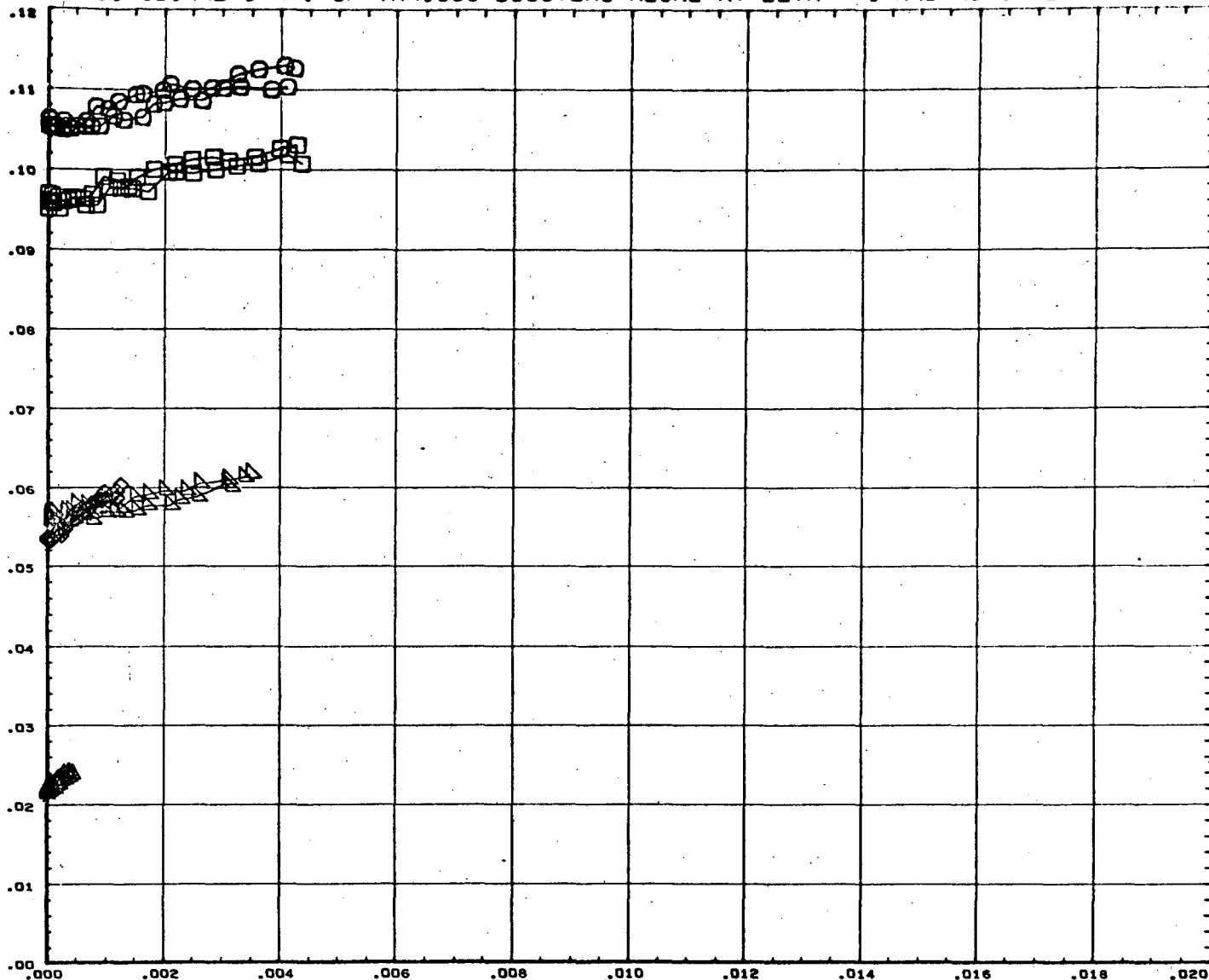
MACH

.89

PAGE 290

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

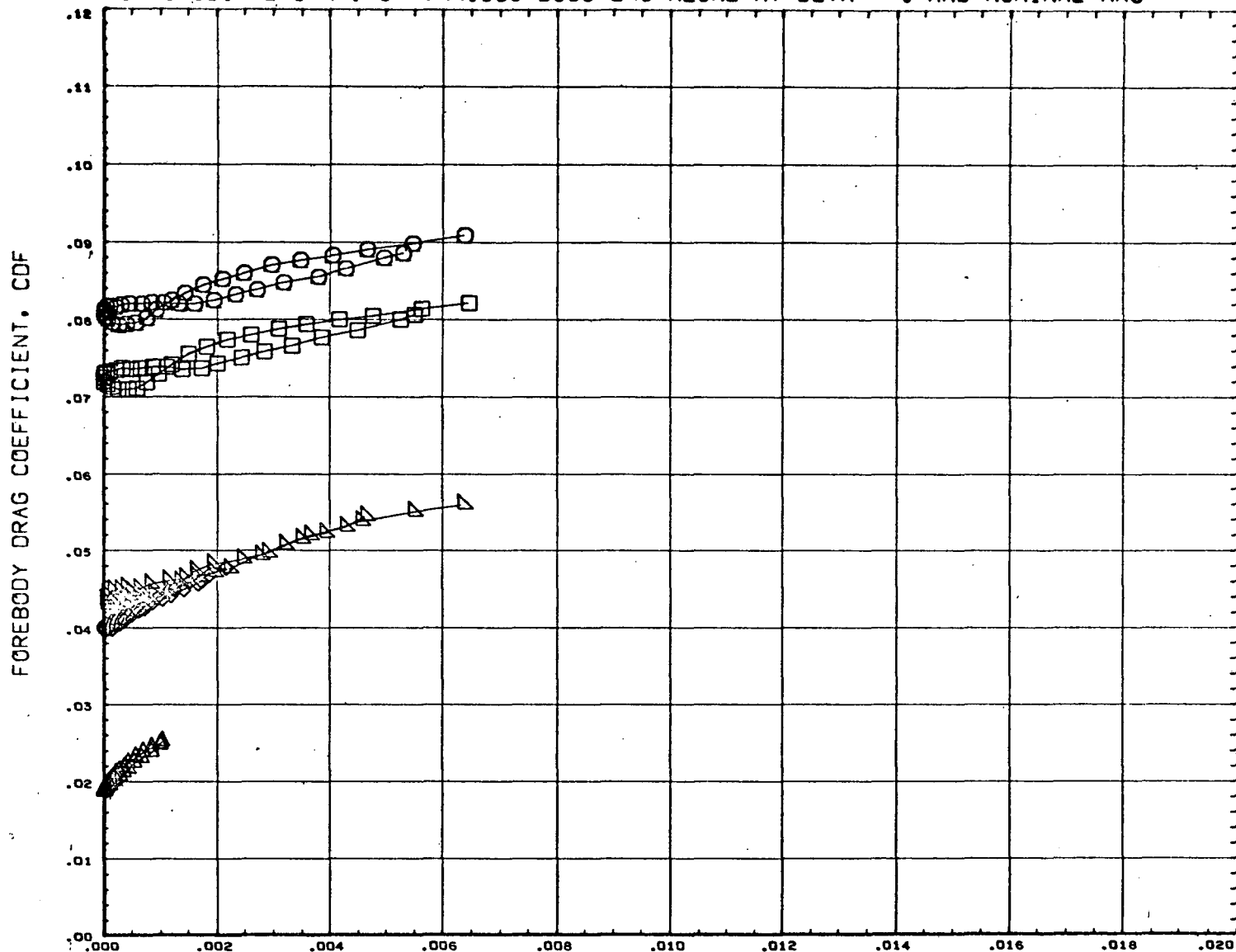
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 291

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

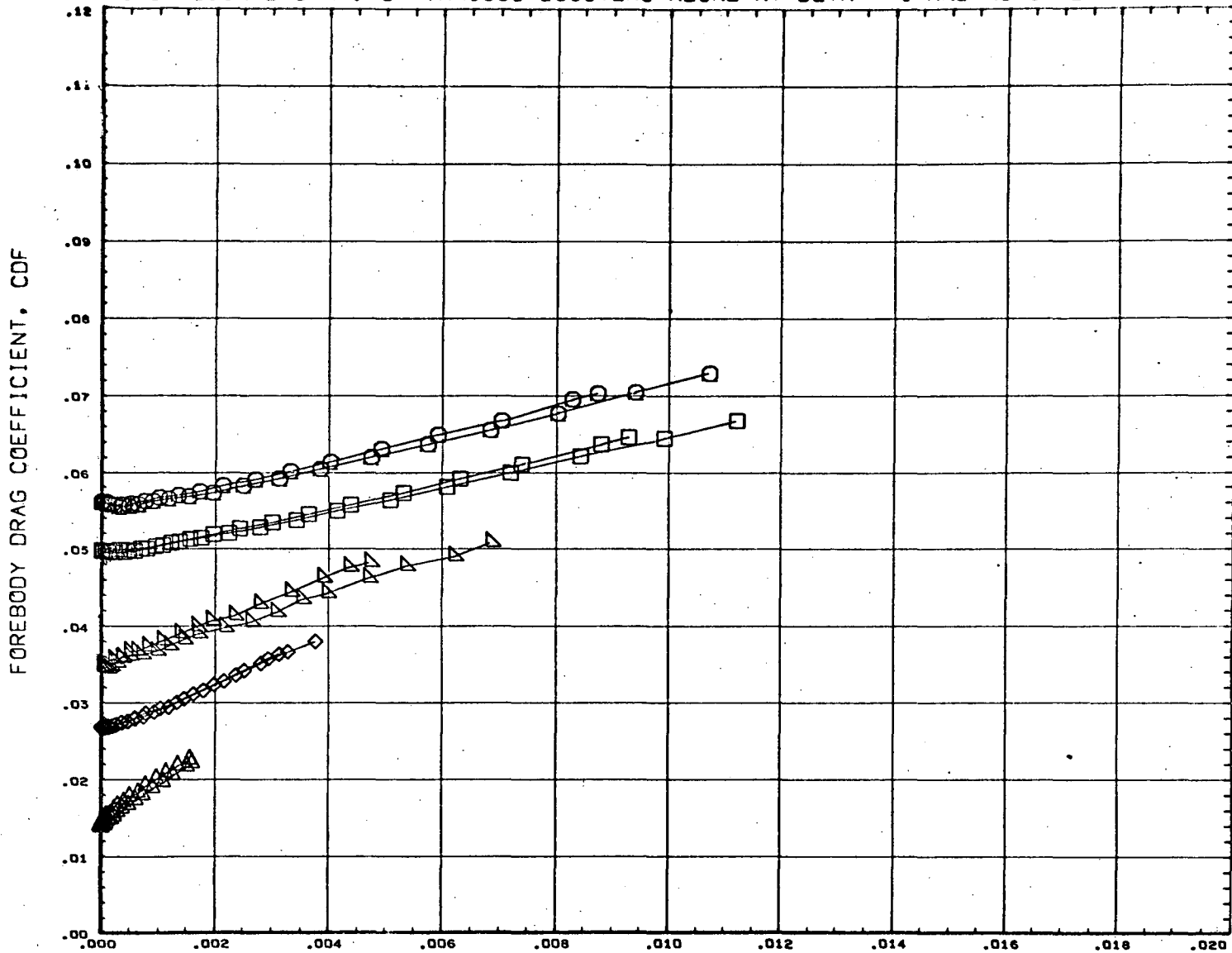
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ. FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 731.0004 IN.
YMRP 0.0000 IN.
ZMRP 0.0000 IN.
SCALE 0.0060

MACH 2.20

PAGE 292

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

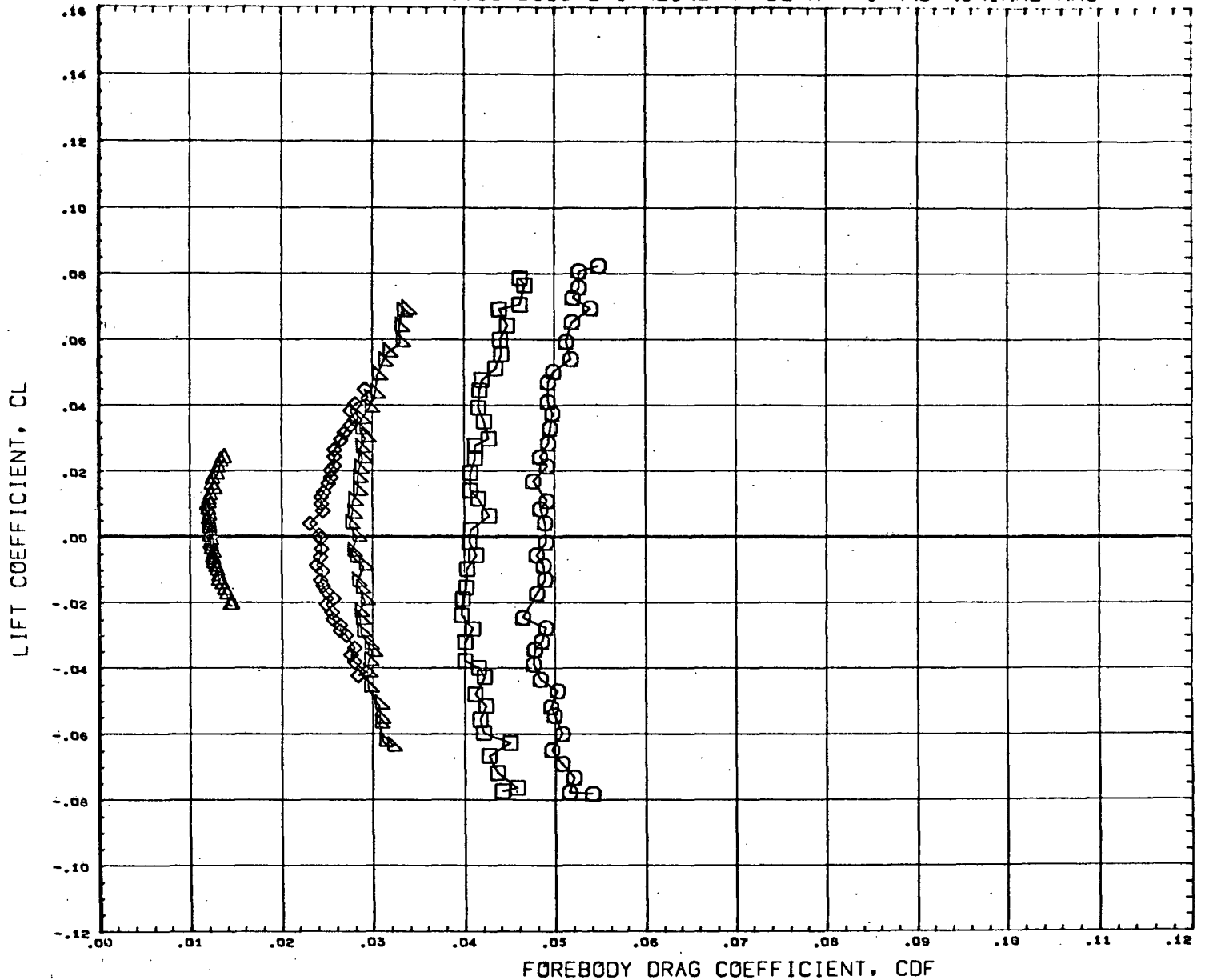
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	731.0004	IN.
YMRF	0.0000	IN.
ZMRF	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 293

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

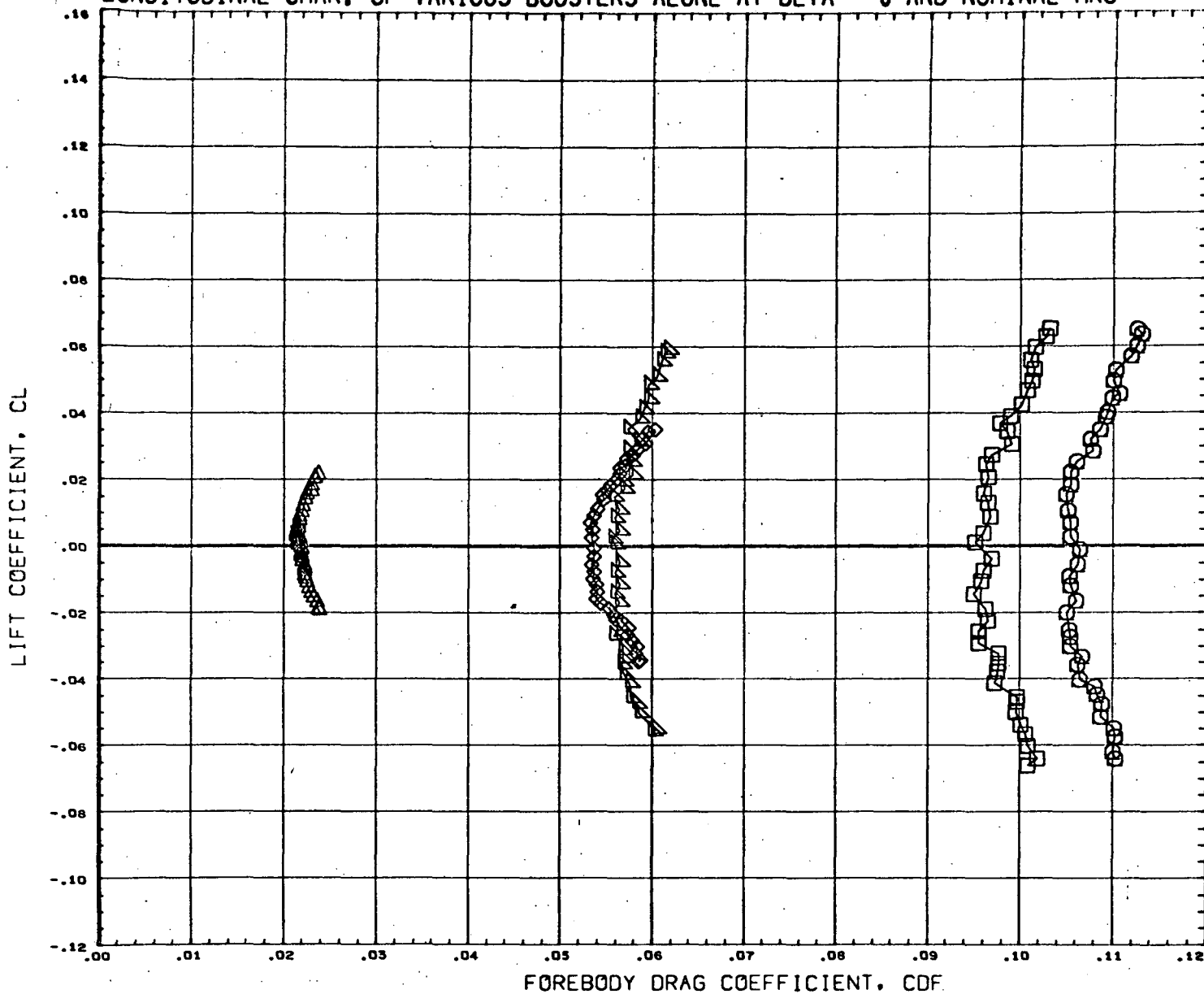
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 294

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

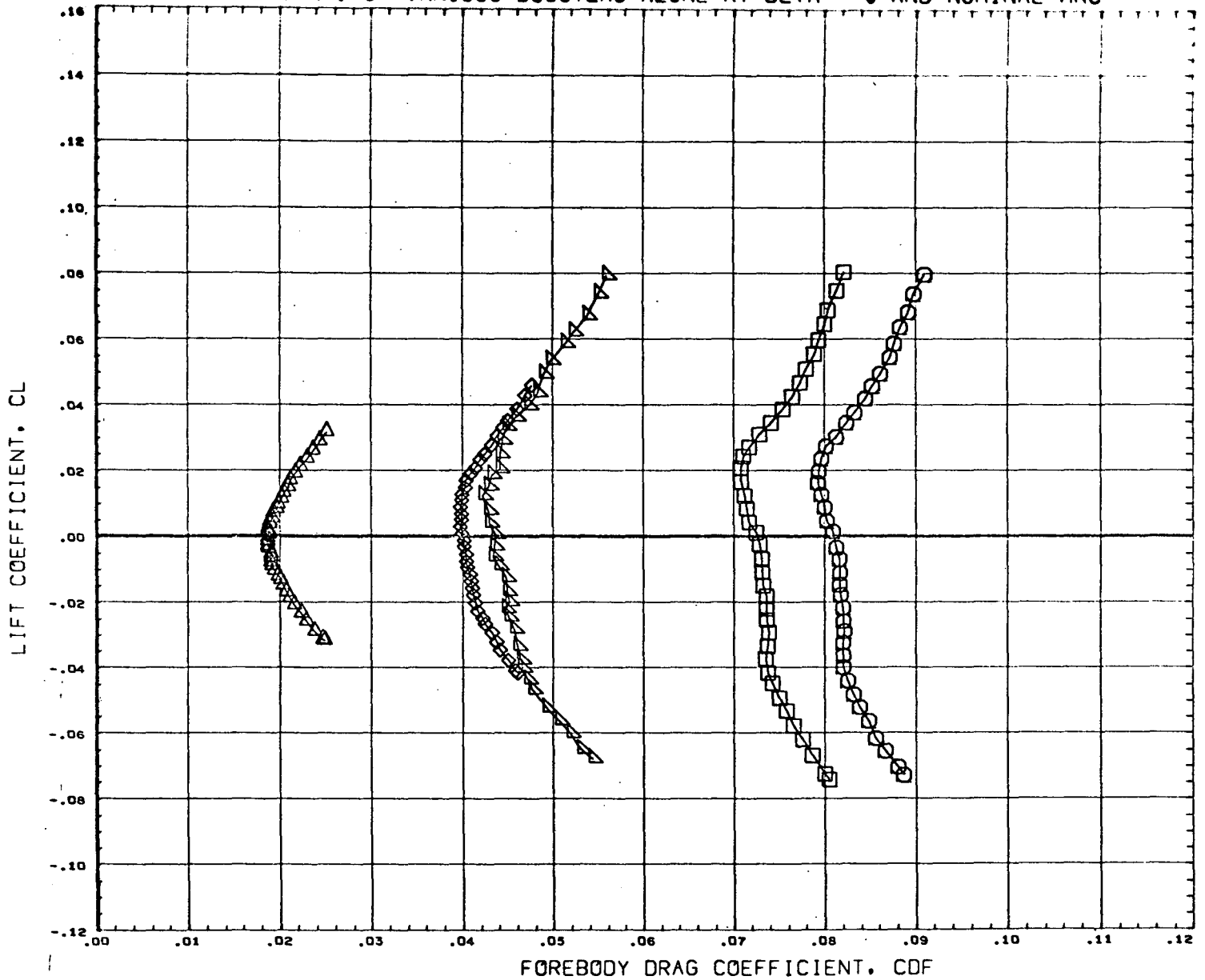
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 295

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

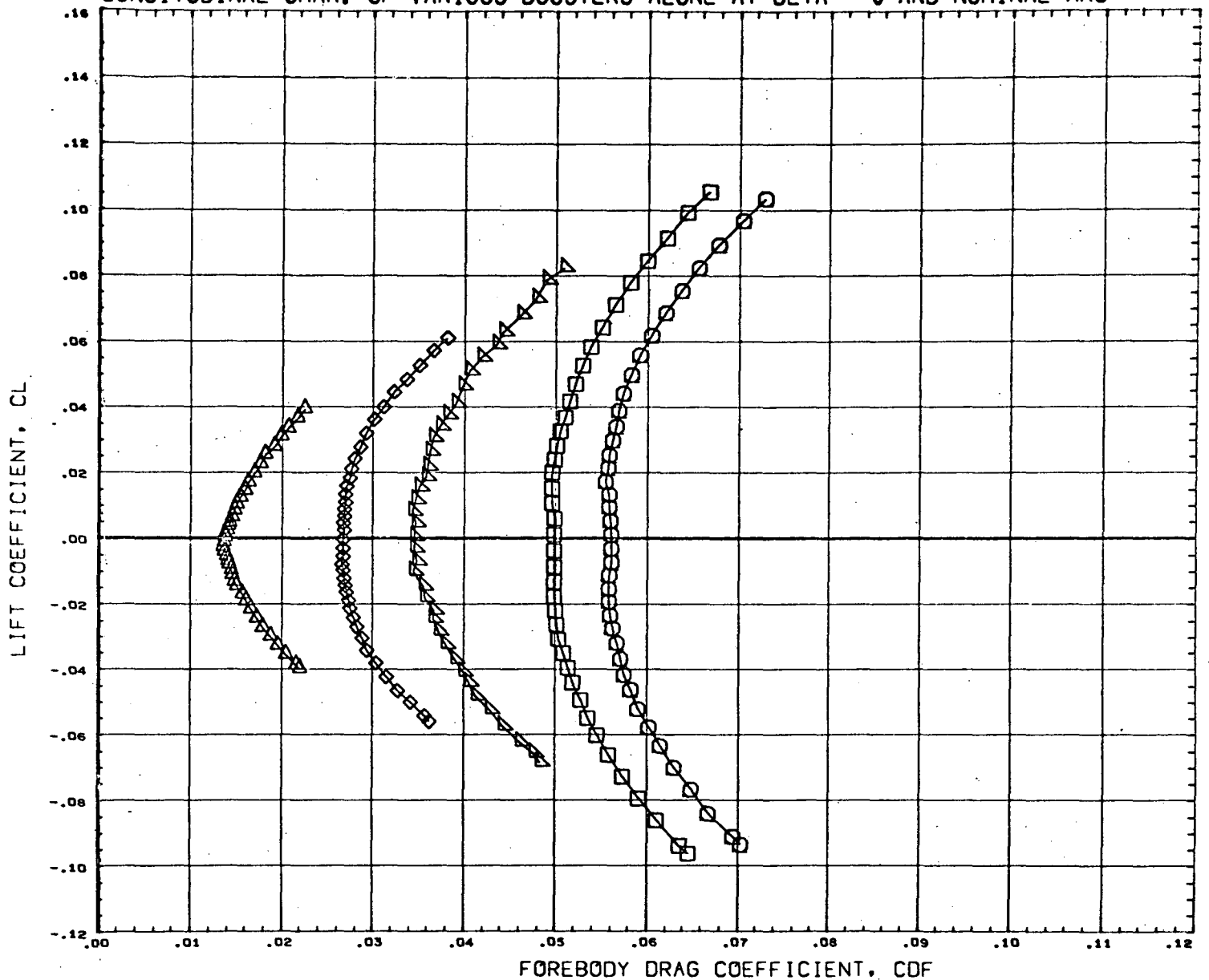
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 296

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

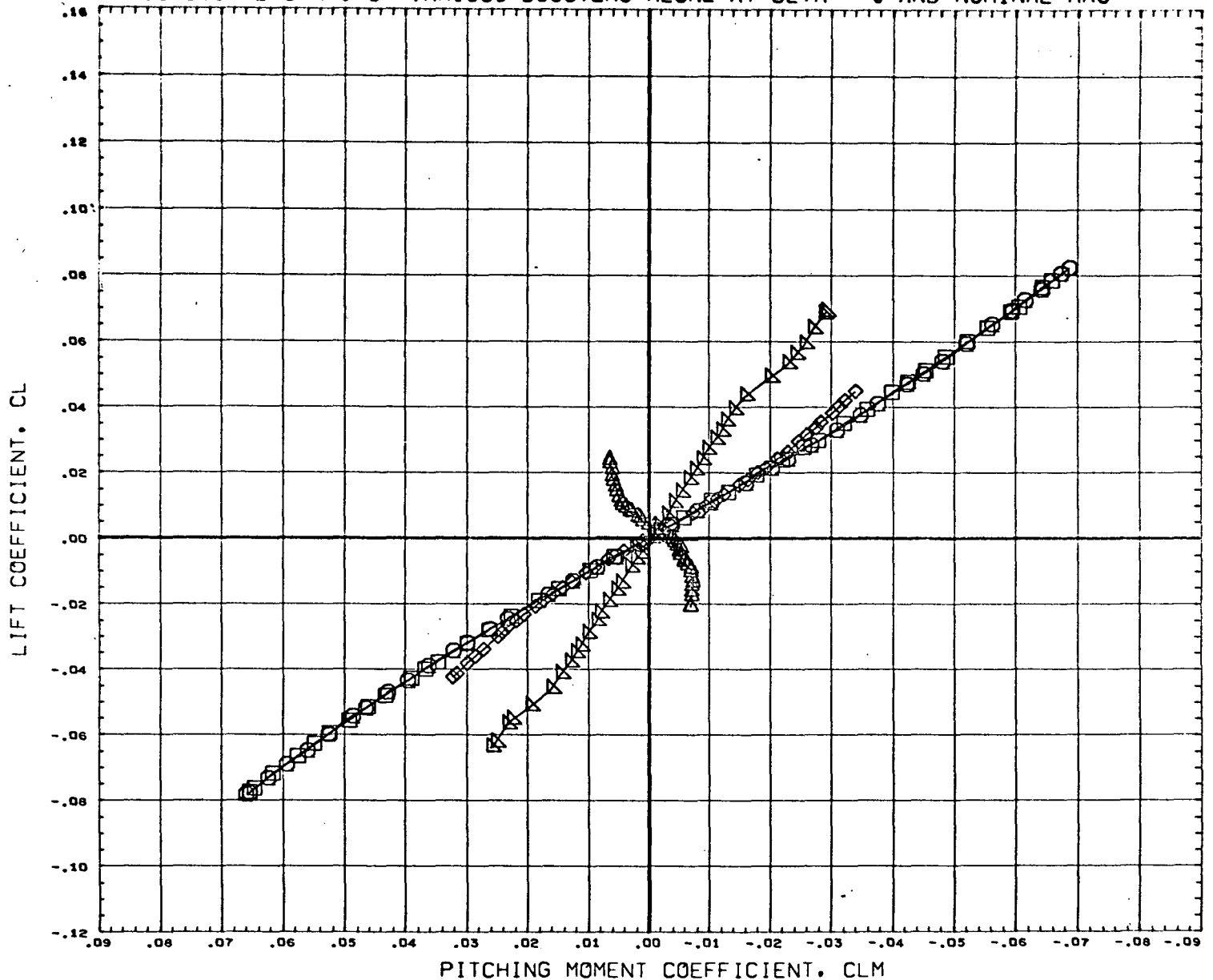
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 297

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

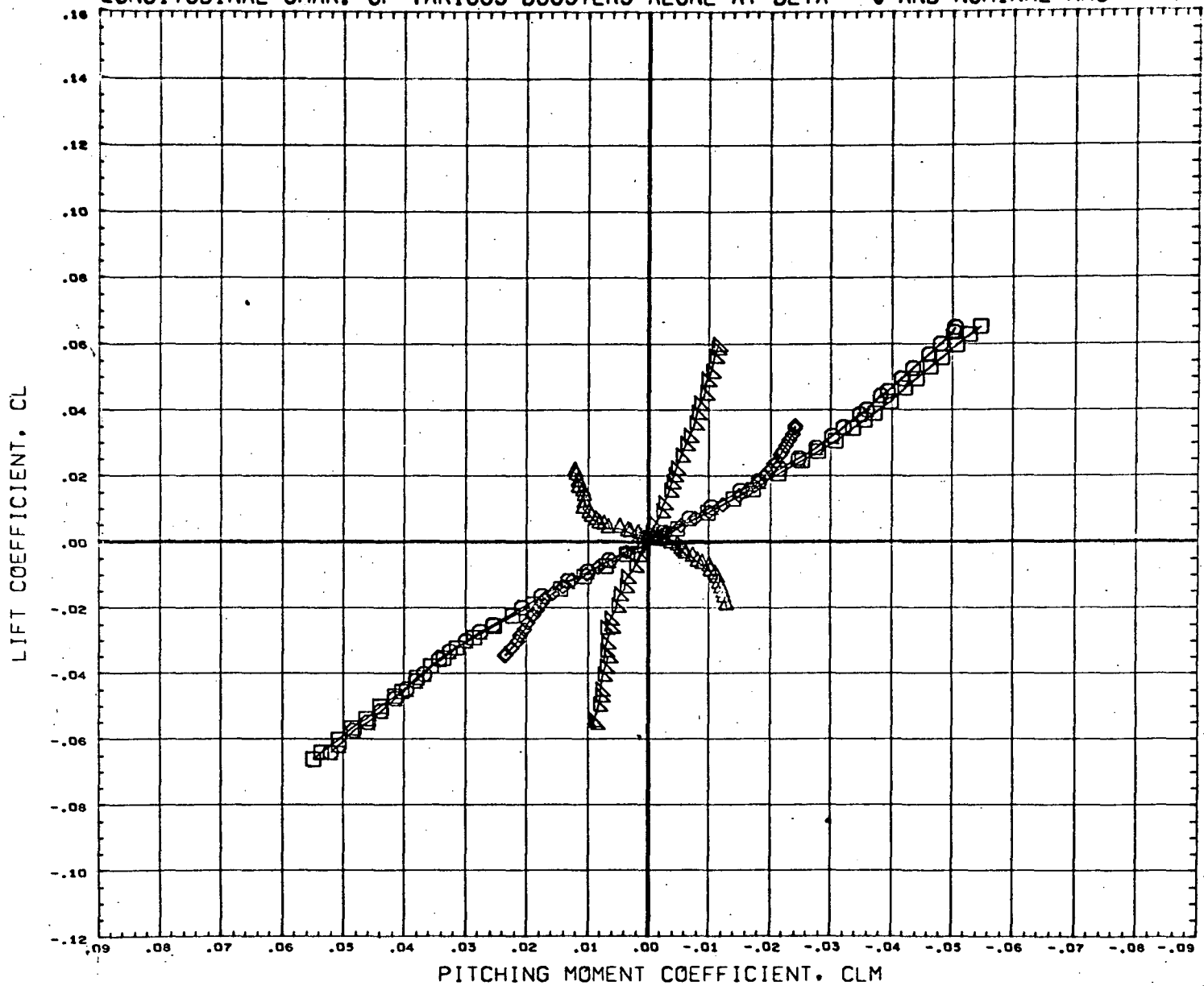
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 298

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

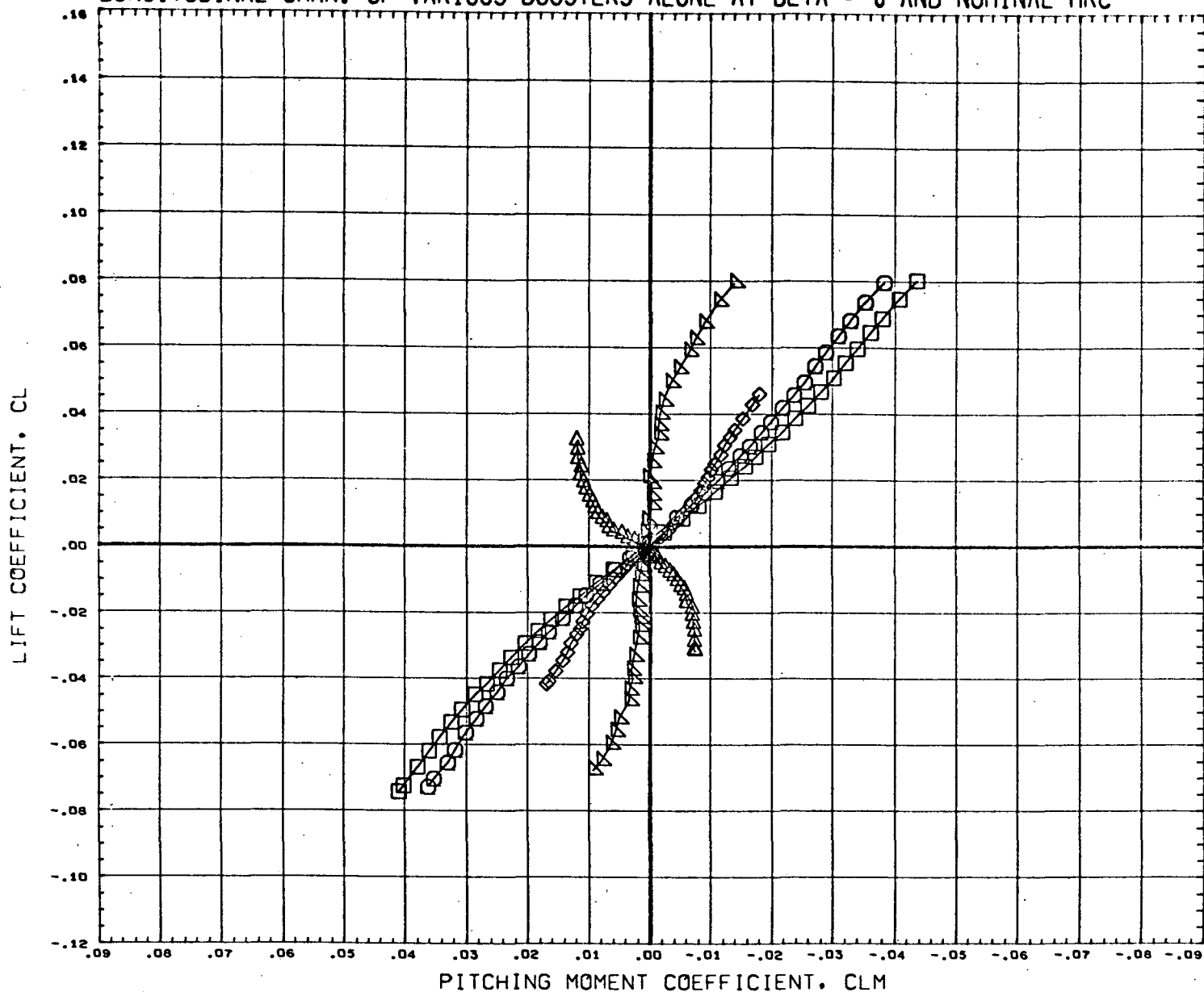
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 299

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC

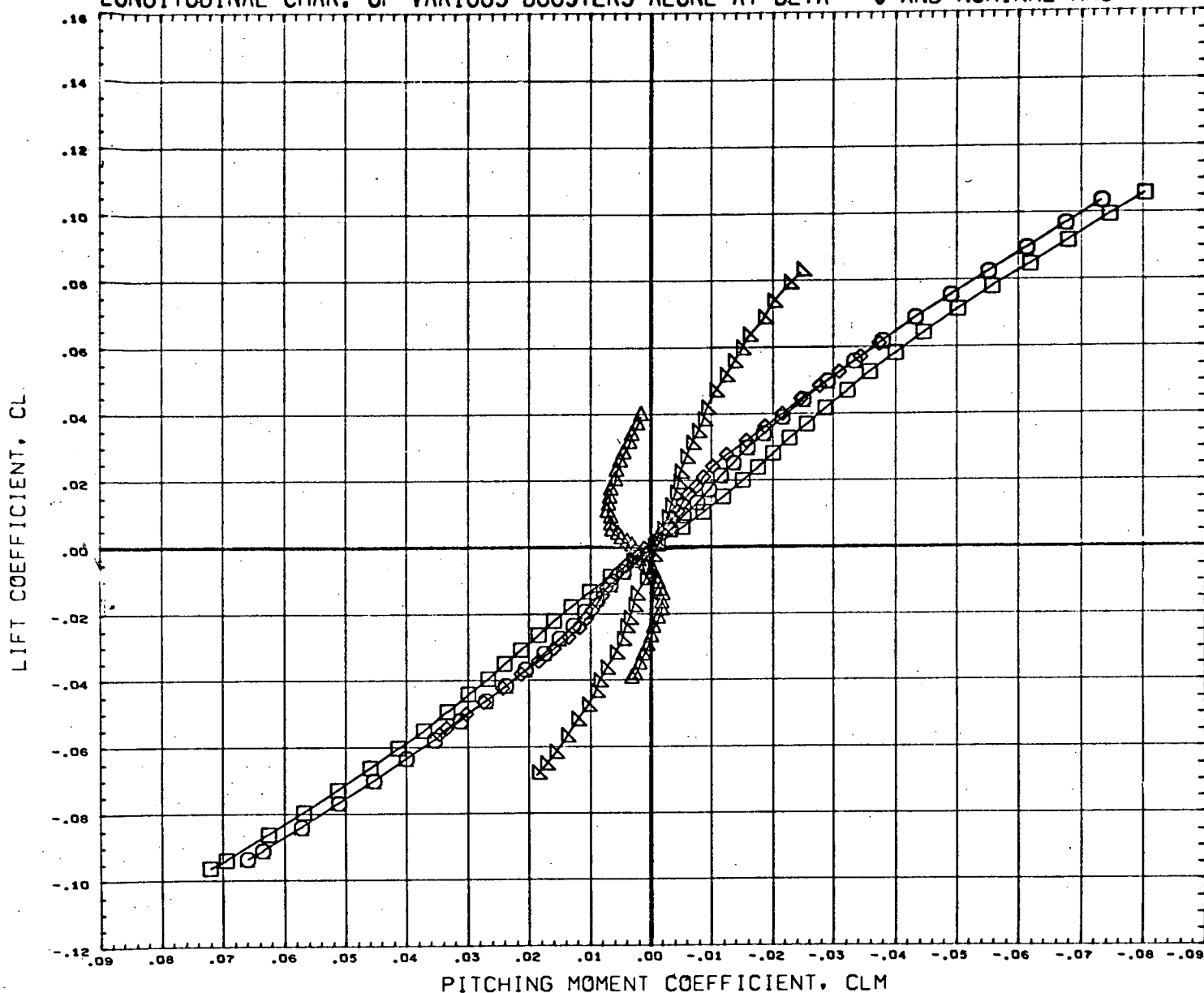


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION	
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1	0.000	SREF	3155.3040 SQ.FT.
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2	0.000	LREF	609.5004 IN.
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S	0.000	BREF	882.0004 IN.
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3	0.000	XMRP	731.0004 IN.
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4	0.000	YMRP	0.0000 IN.
			ZMRP	0.0000 IN.
			SCALE	0.0060

MACH 2.20

PAGE 300

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7801)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(CD7802)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(CD7803)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(CD7804)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(CD7805)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

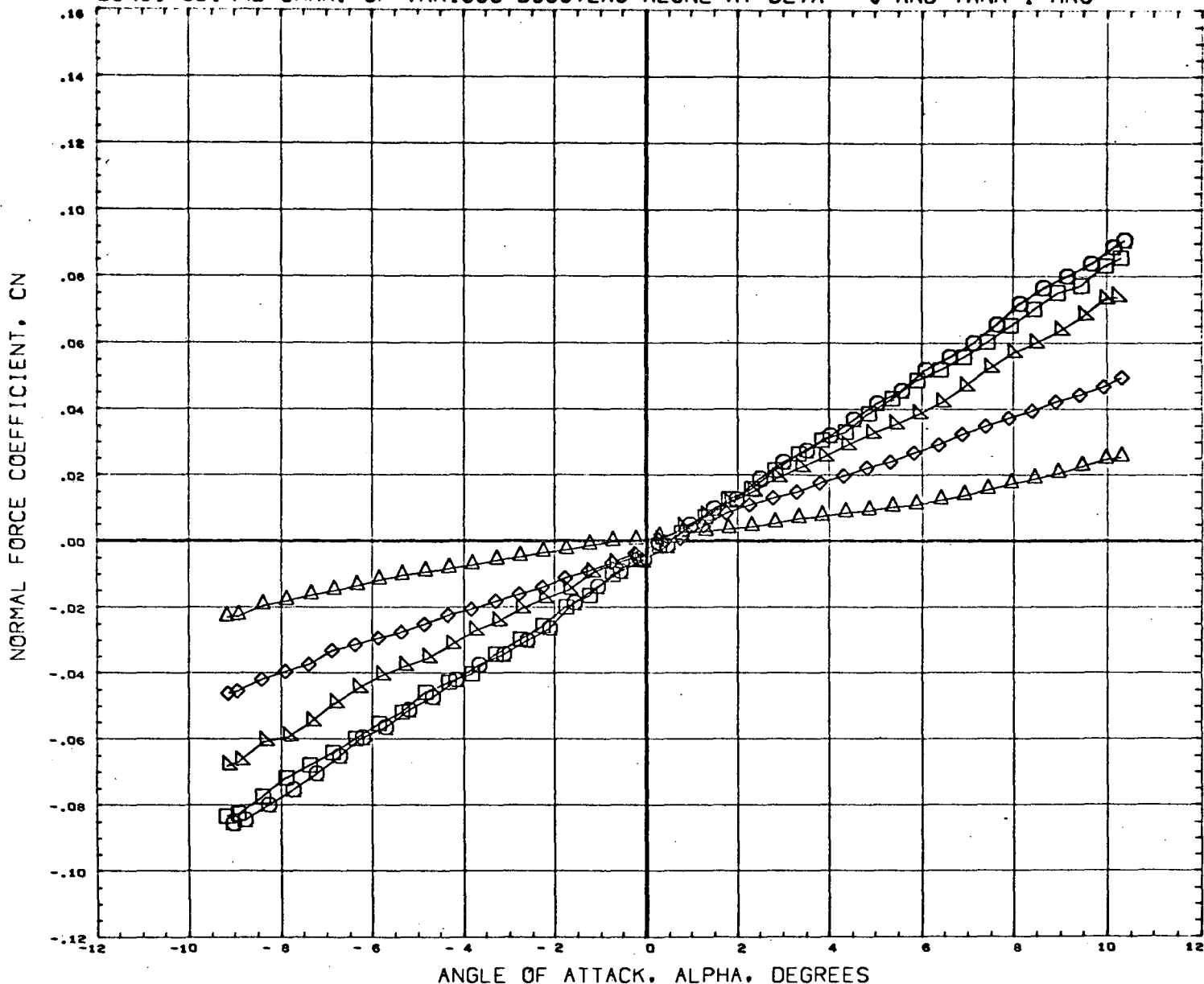
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH

4.47

PAGE 301

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

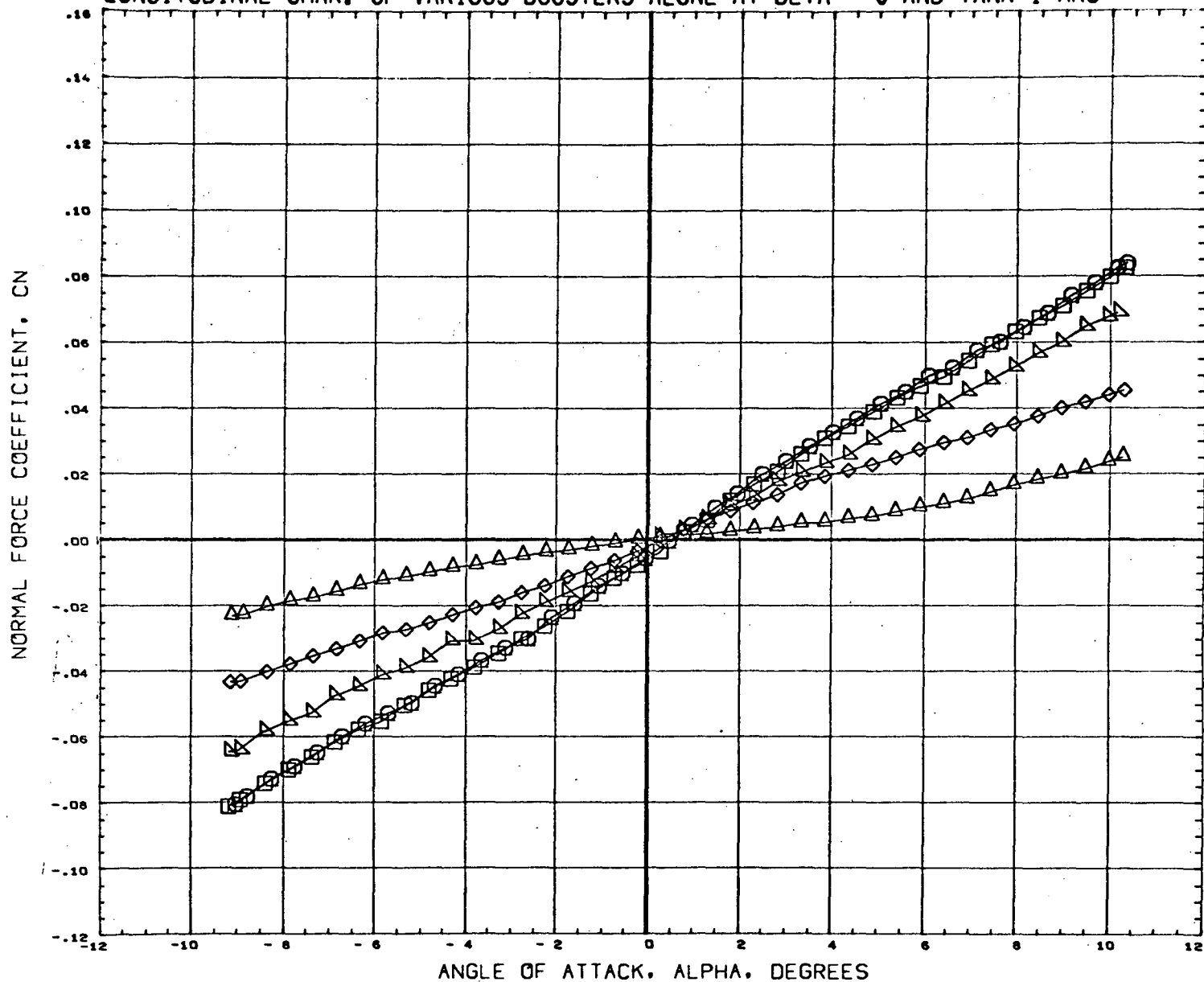
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
YMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 302

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

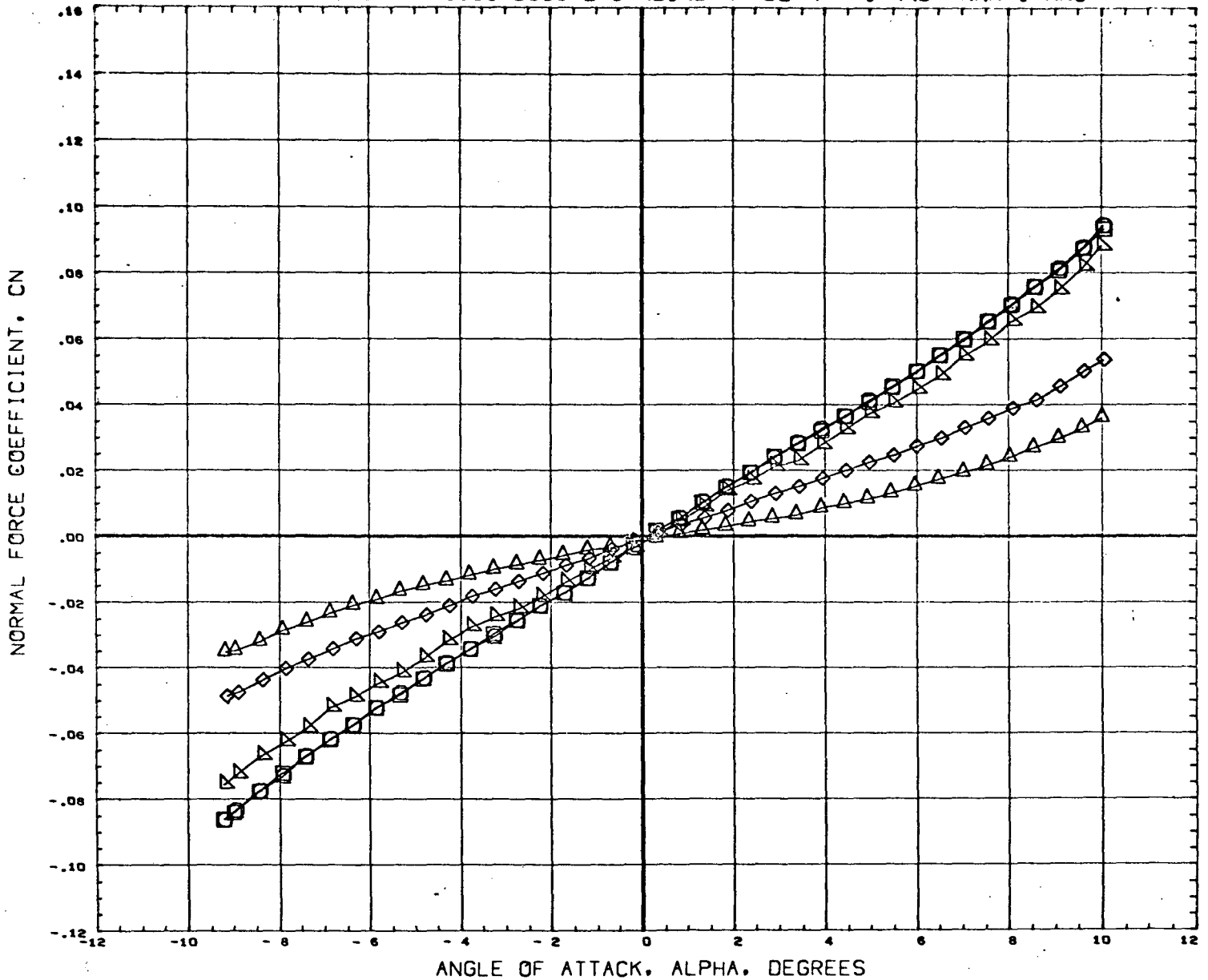
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE/ 303

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

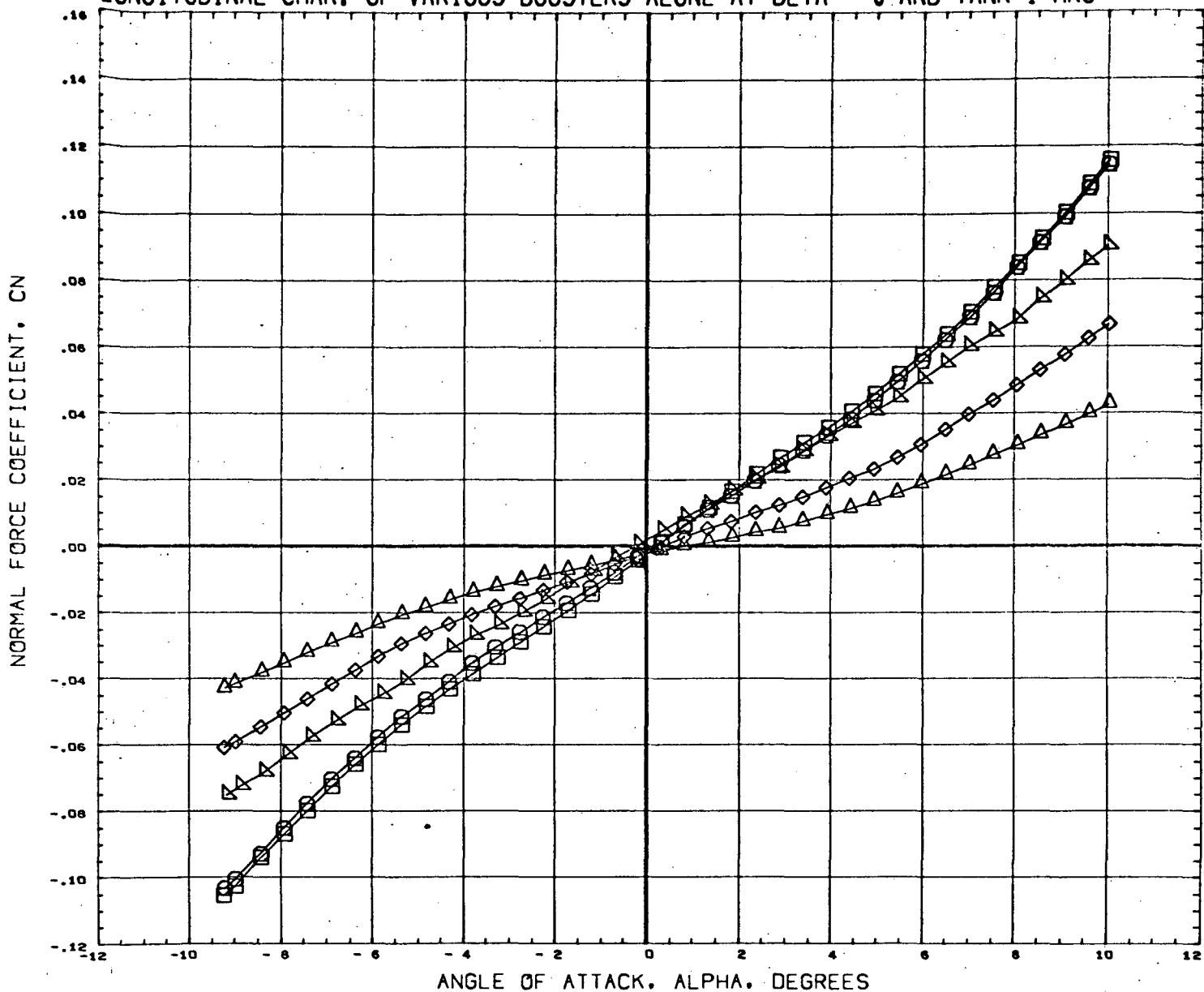
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	982.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

2.20

PAGE 304

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

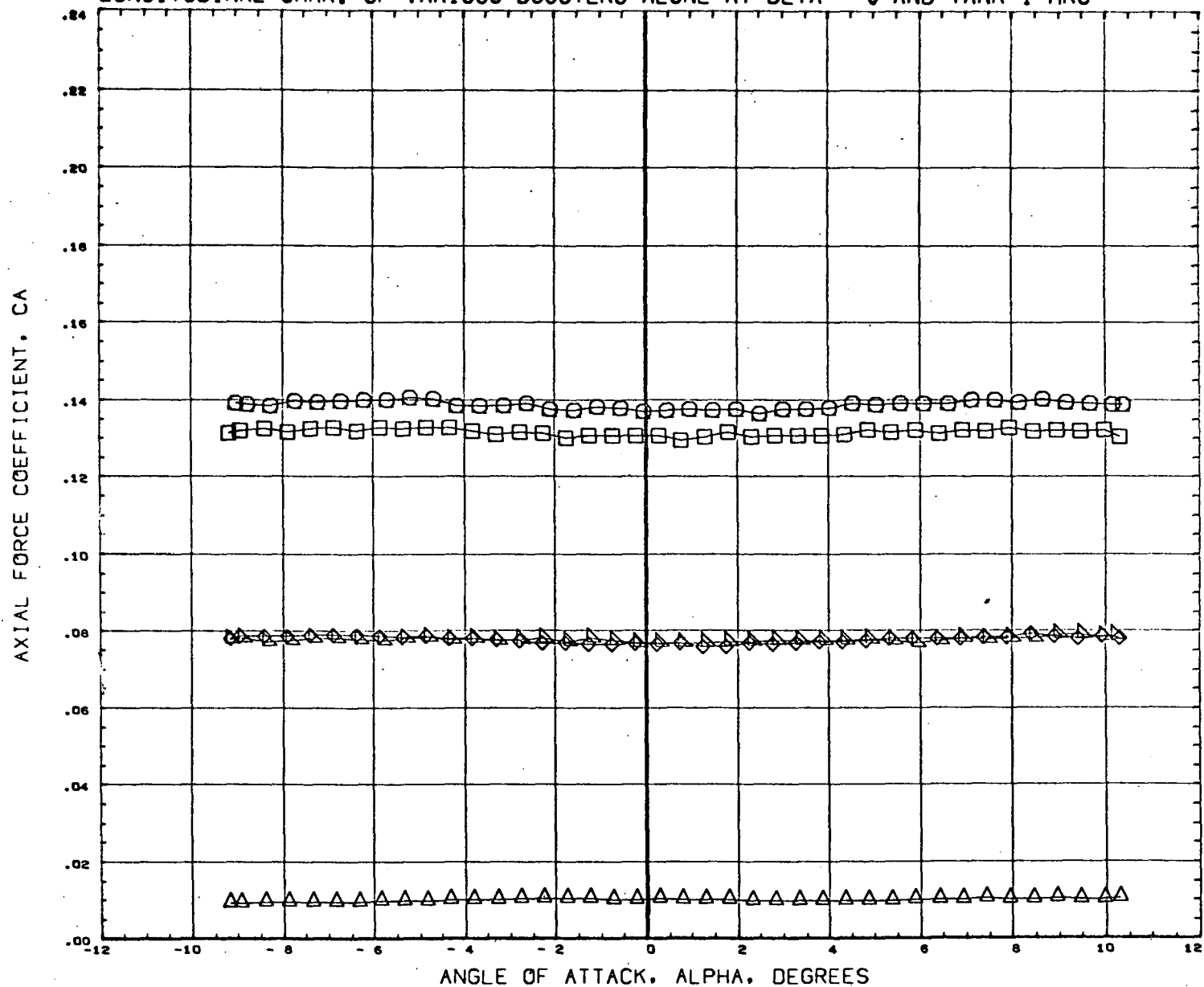
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 305

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

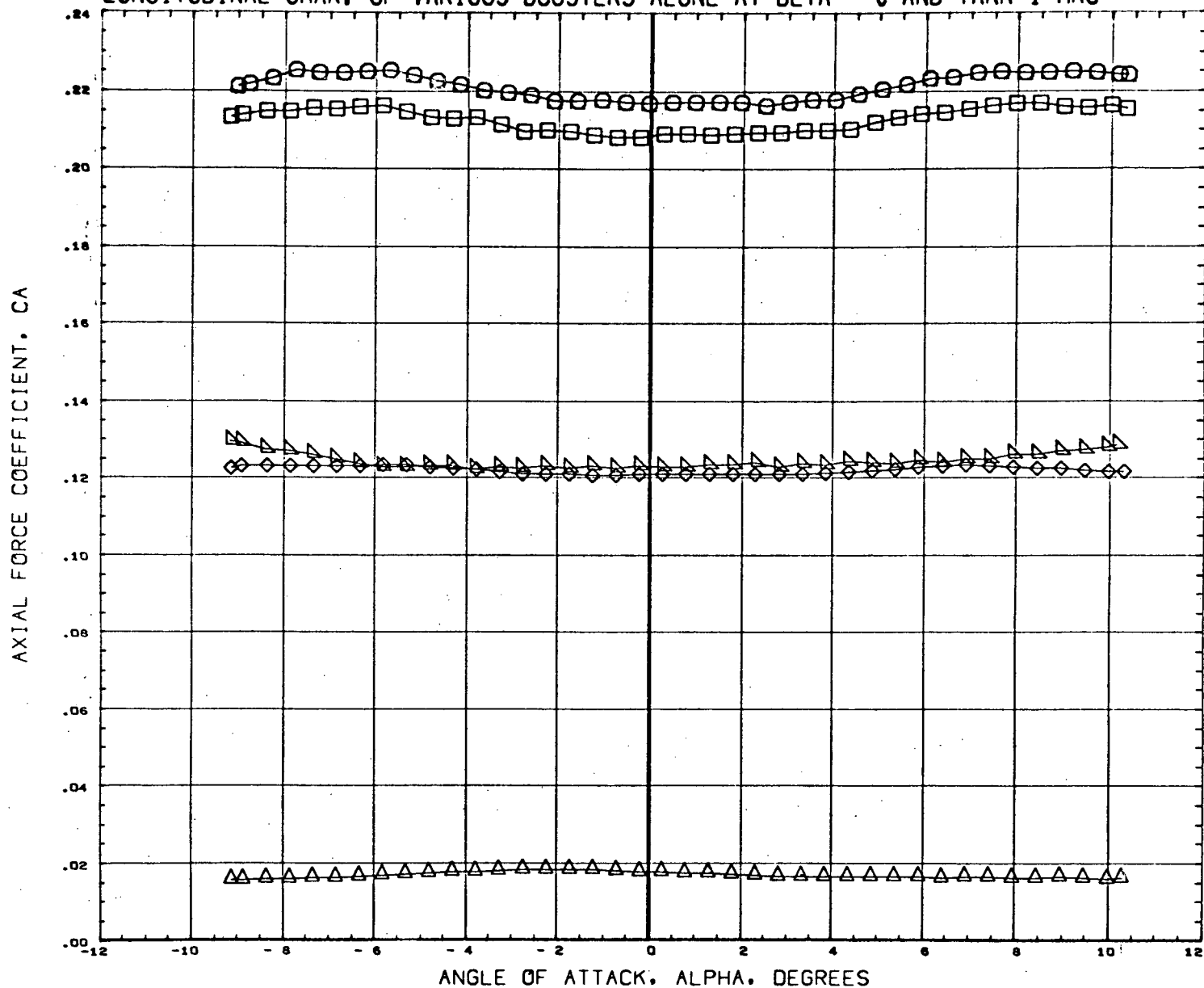


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000	LREF 609.5004 IN.
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000	BREF 882.0004 IN.
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000	XMRP 557.0004 IN.
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000	YMRP 277.3004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH .89

PAGE 306

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

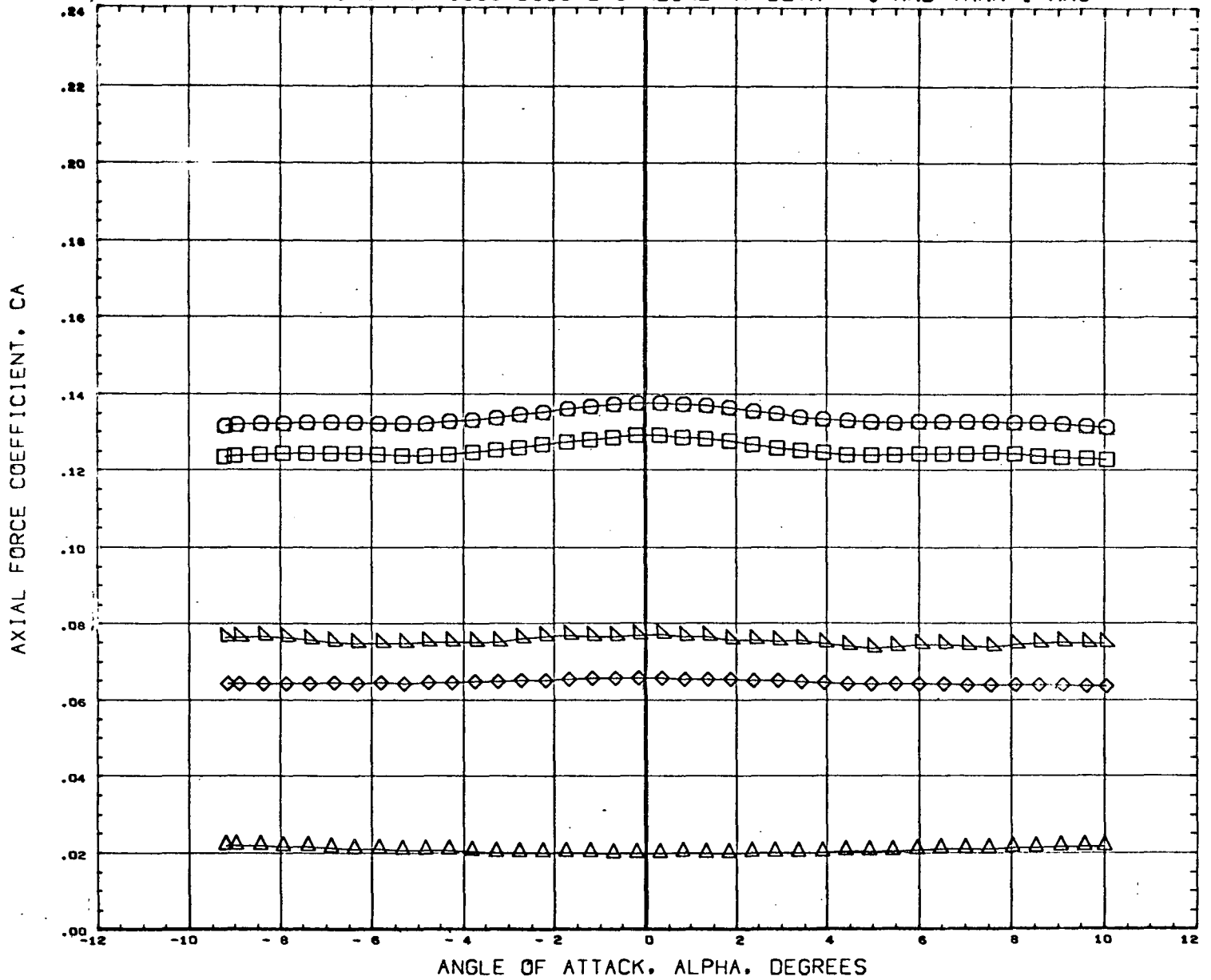
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 307

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B4
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA

0.000

0.000

0.000

0.000

0.000

REFERENCE INFORMATION

SREF 3155.3040 SQ.FT.

LREF 609.5004 IN.

BREF 882.0004 IN.

XMRP 557.0004 IN.

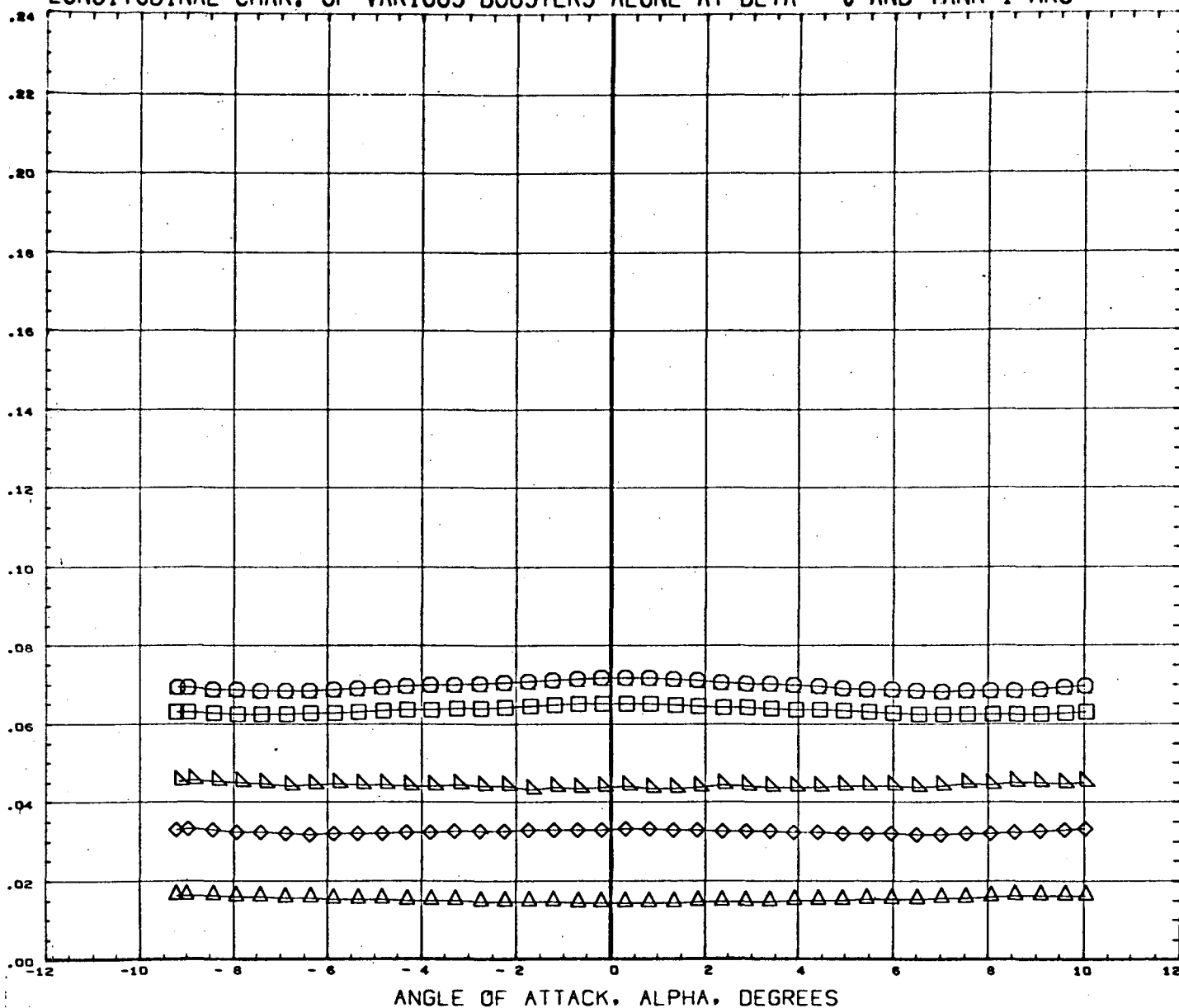
YMRP 277.3004 IN.

ZMRP 200.0004 IN.

SCALE 0.0060

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

AXIAL FORCE COEFFICIENT, CA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

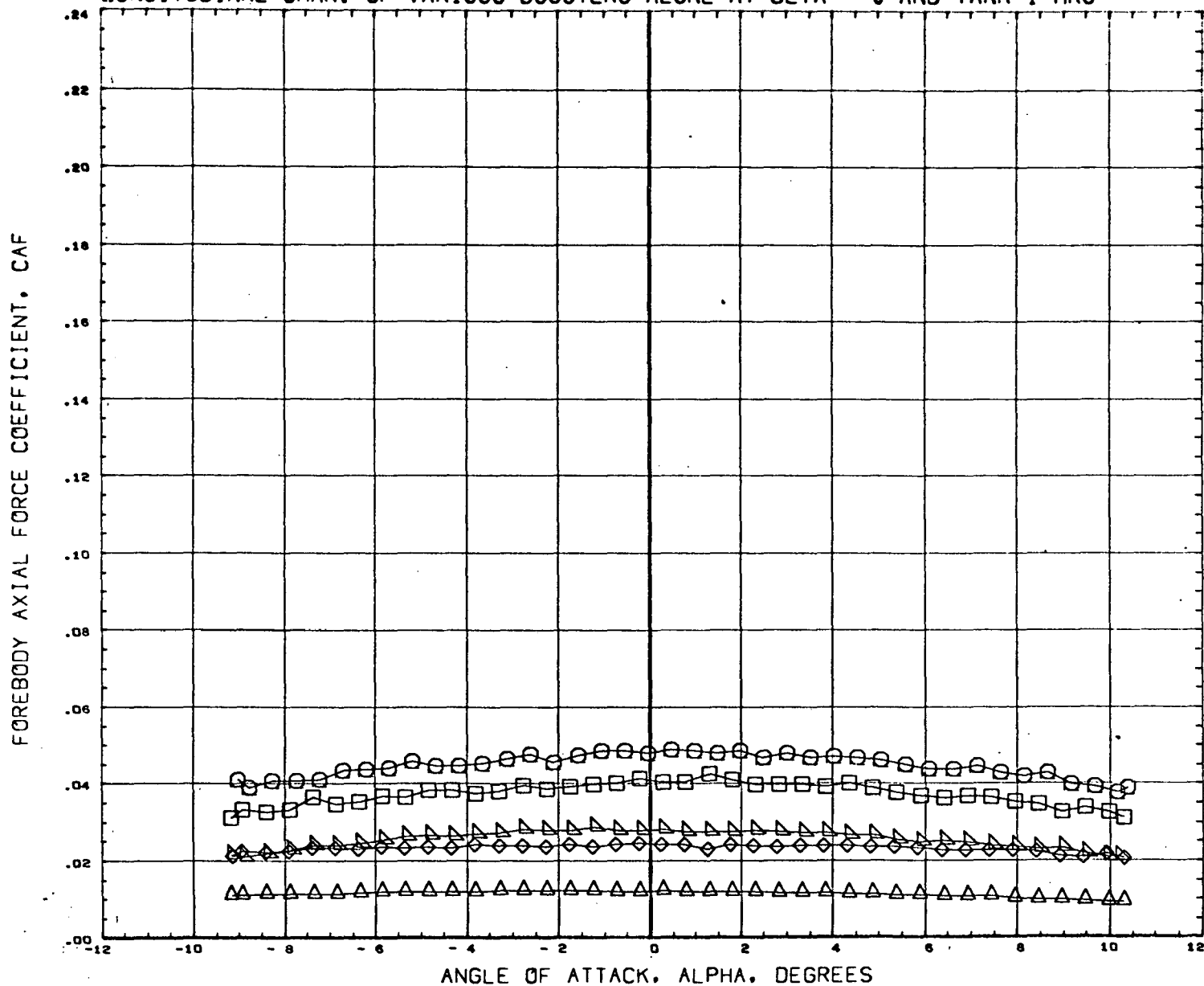
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 309

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



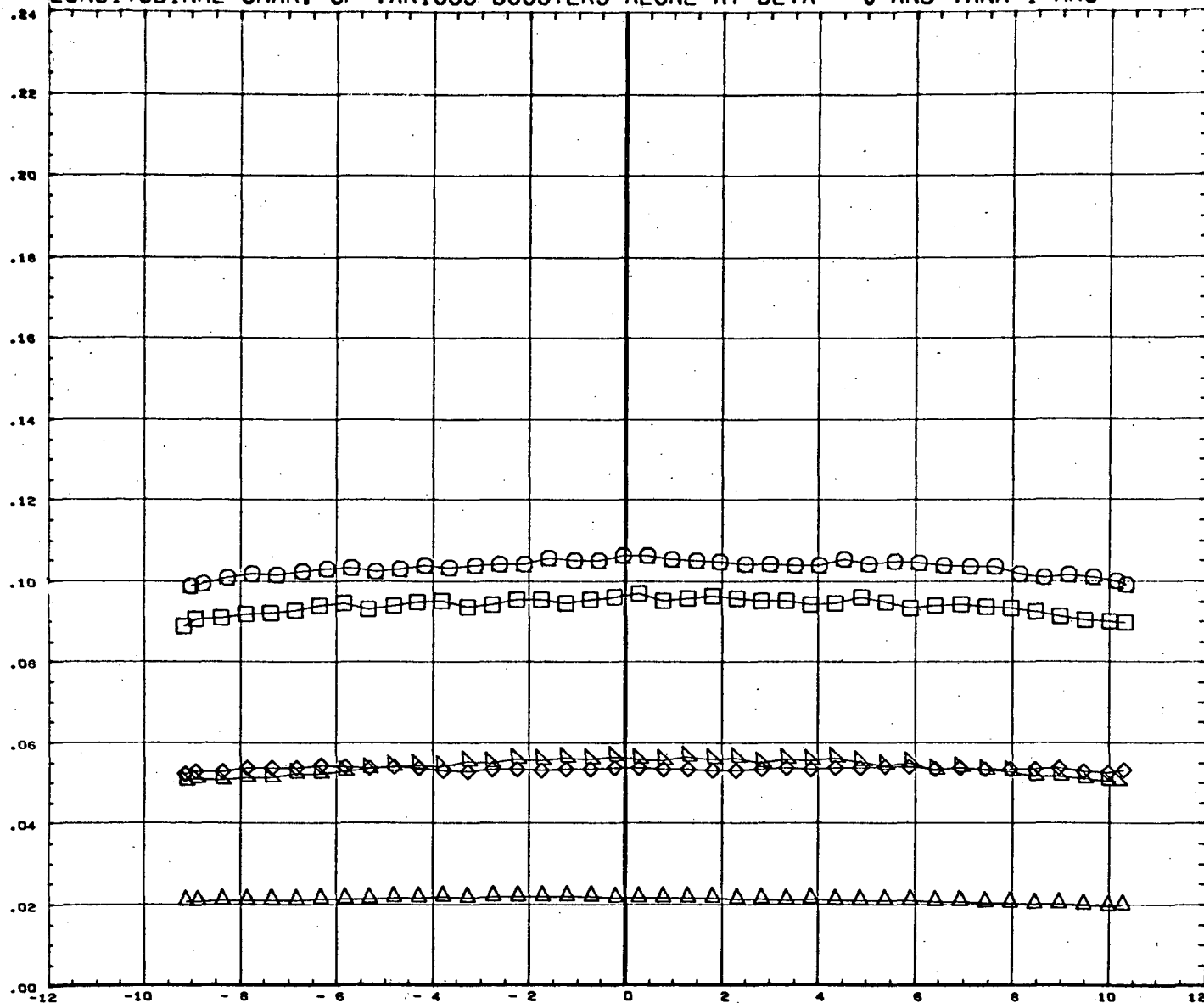
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 310

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG)	B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG)	B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG)	B4

BETA

0.000
0.000
0.000
0.000
0.000

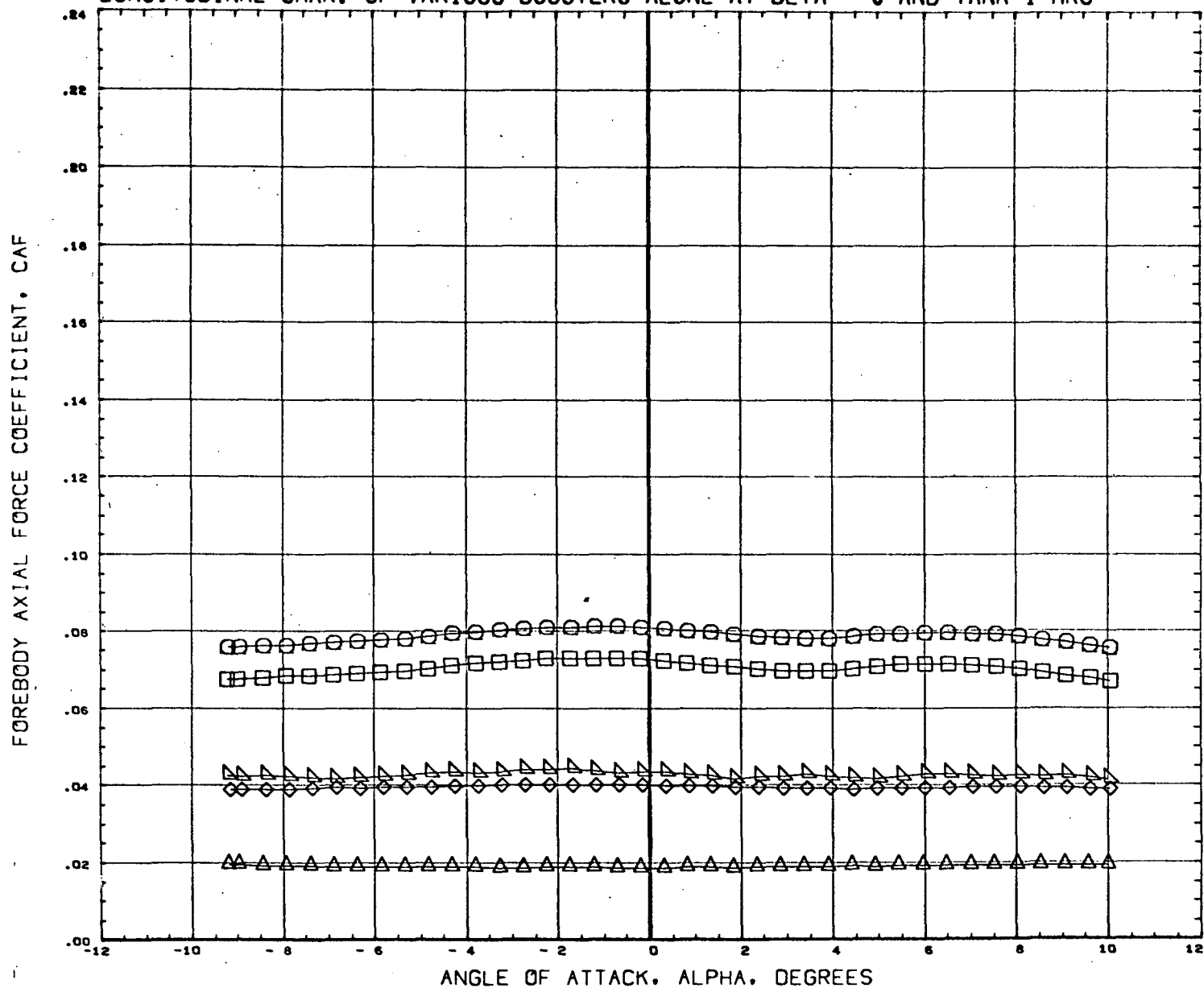
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	357.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 311

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG)	B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG)	B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG)	B4

BETA
0.000
0.000
0.000
0.000
0.000

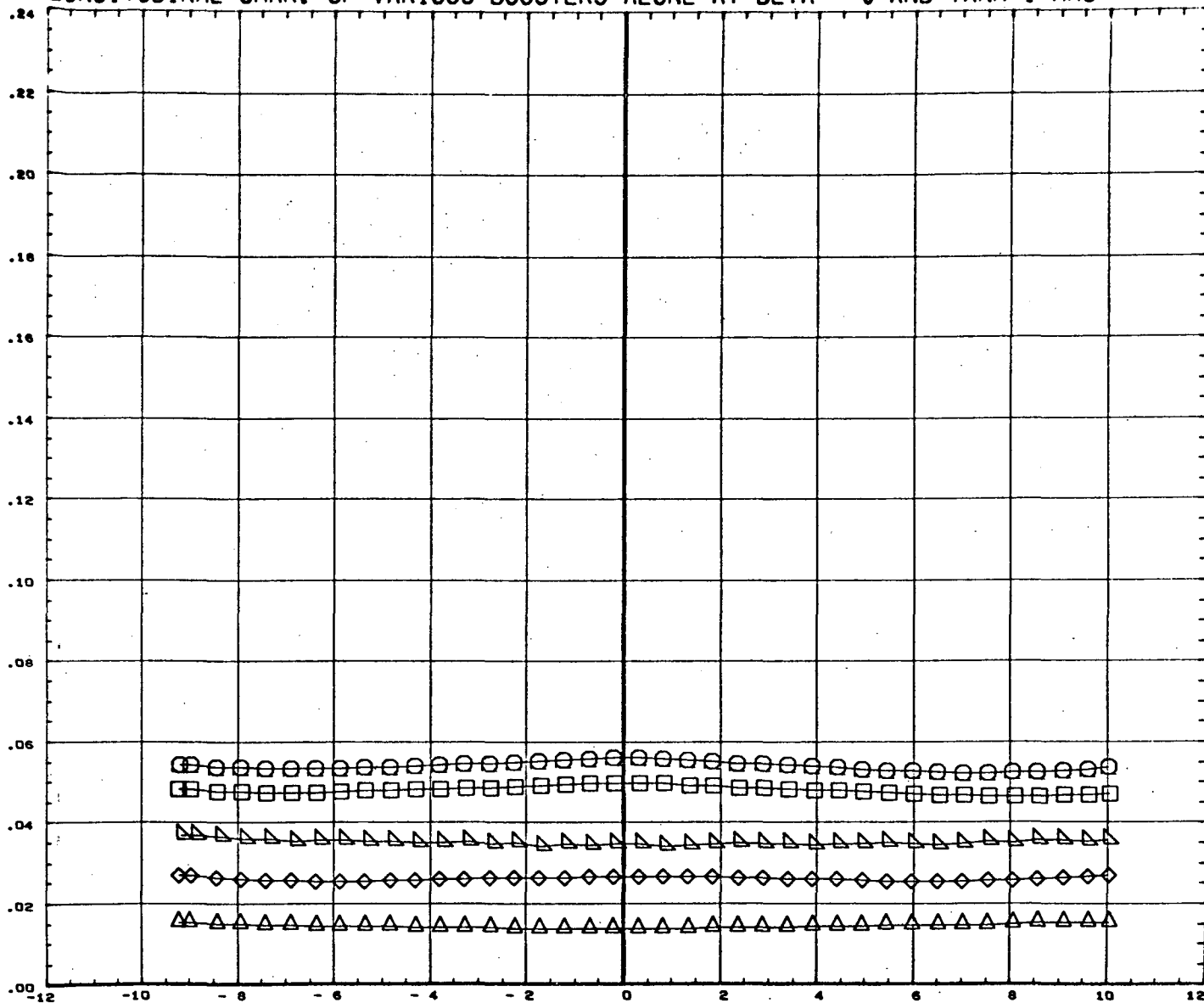
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 312

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

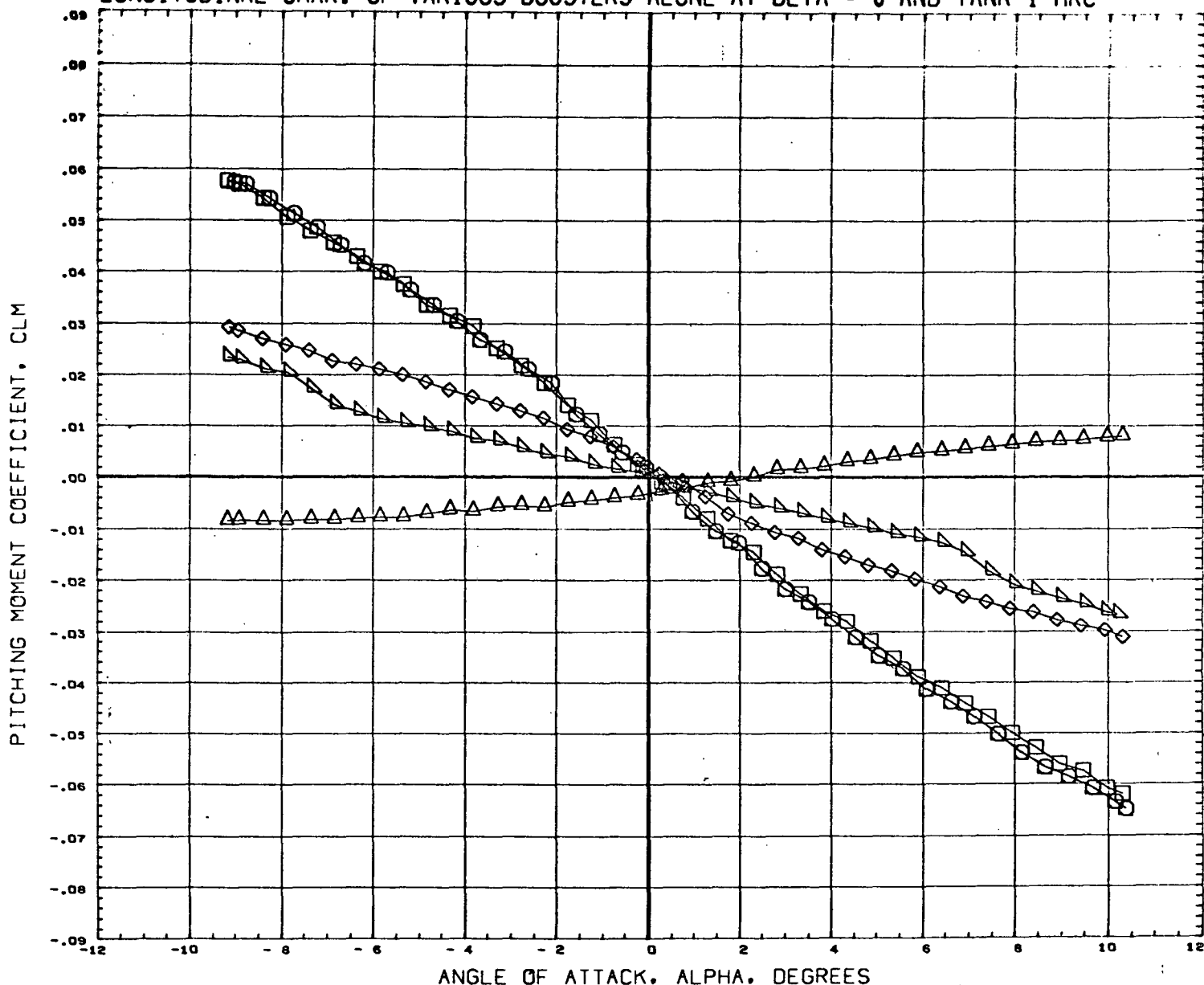
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 313

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

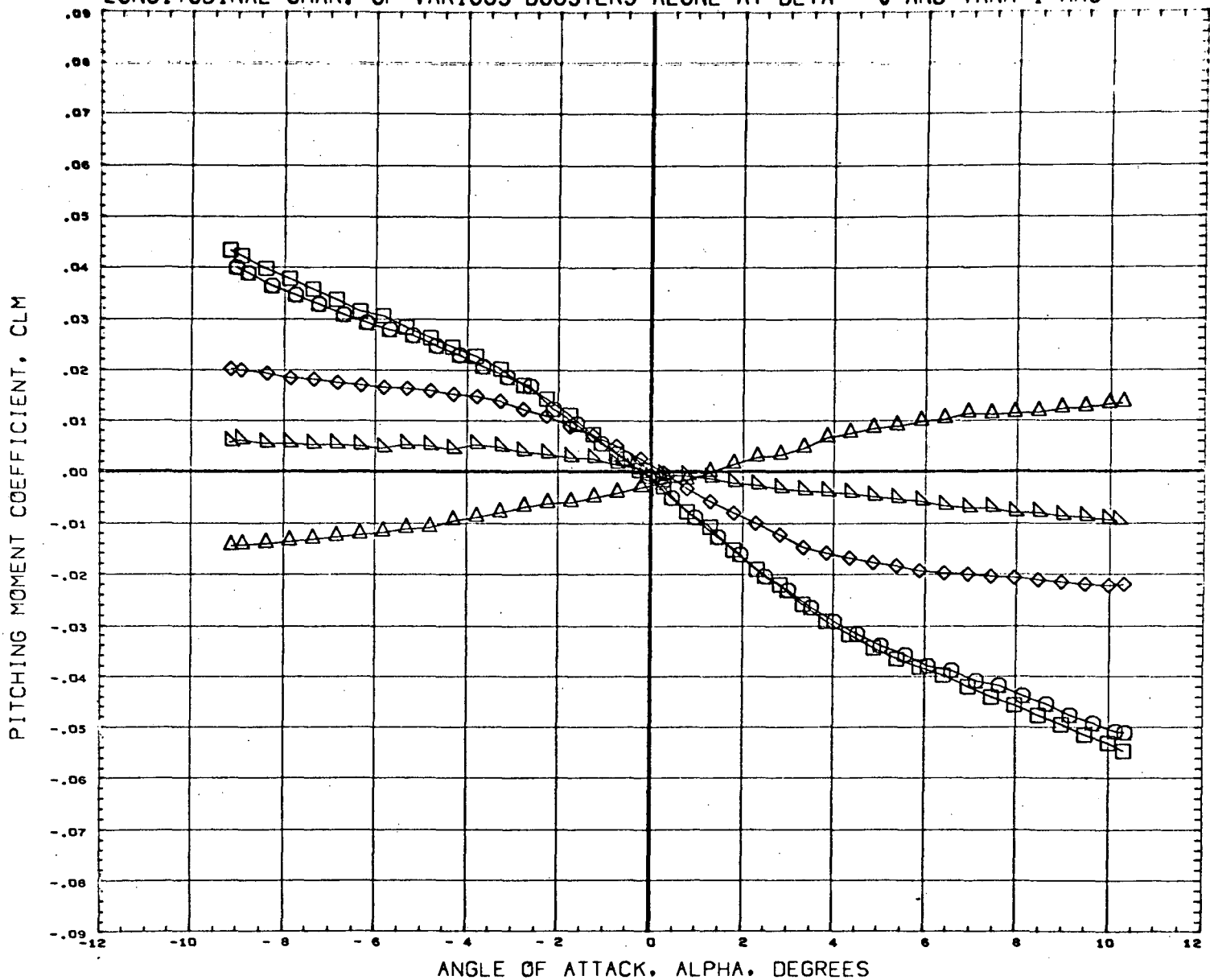
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 314

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

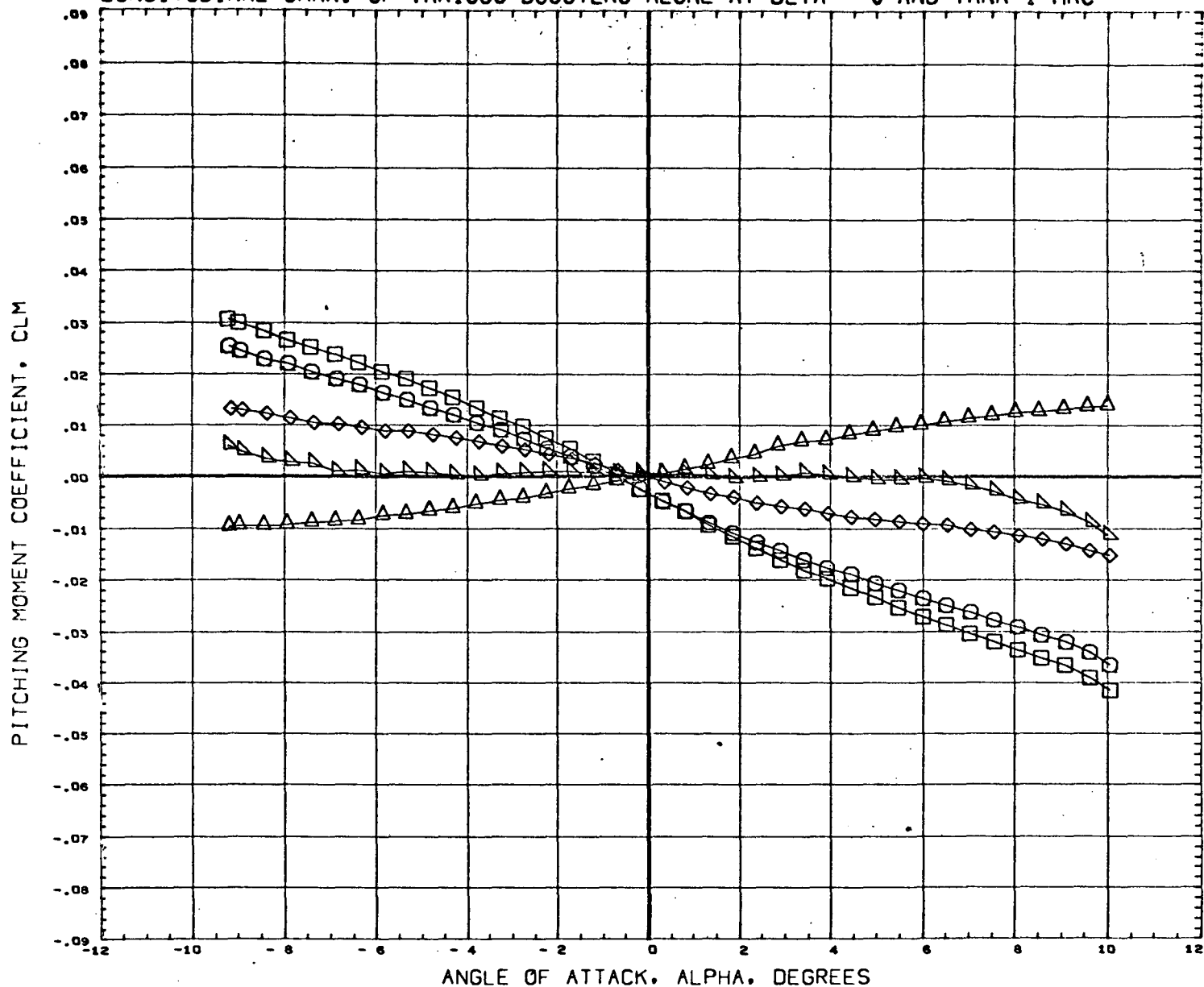
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 315

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

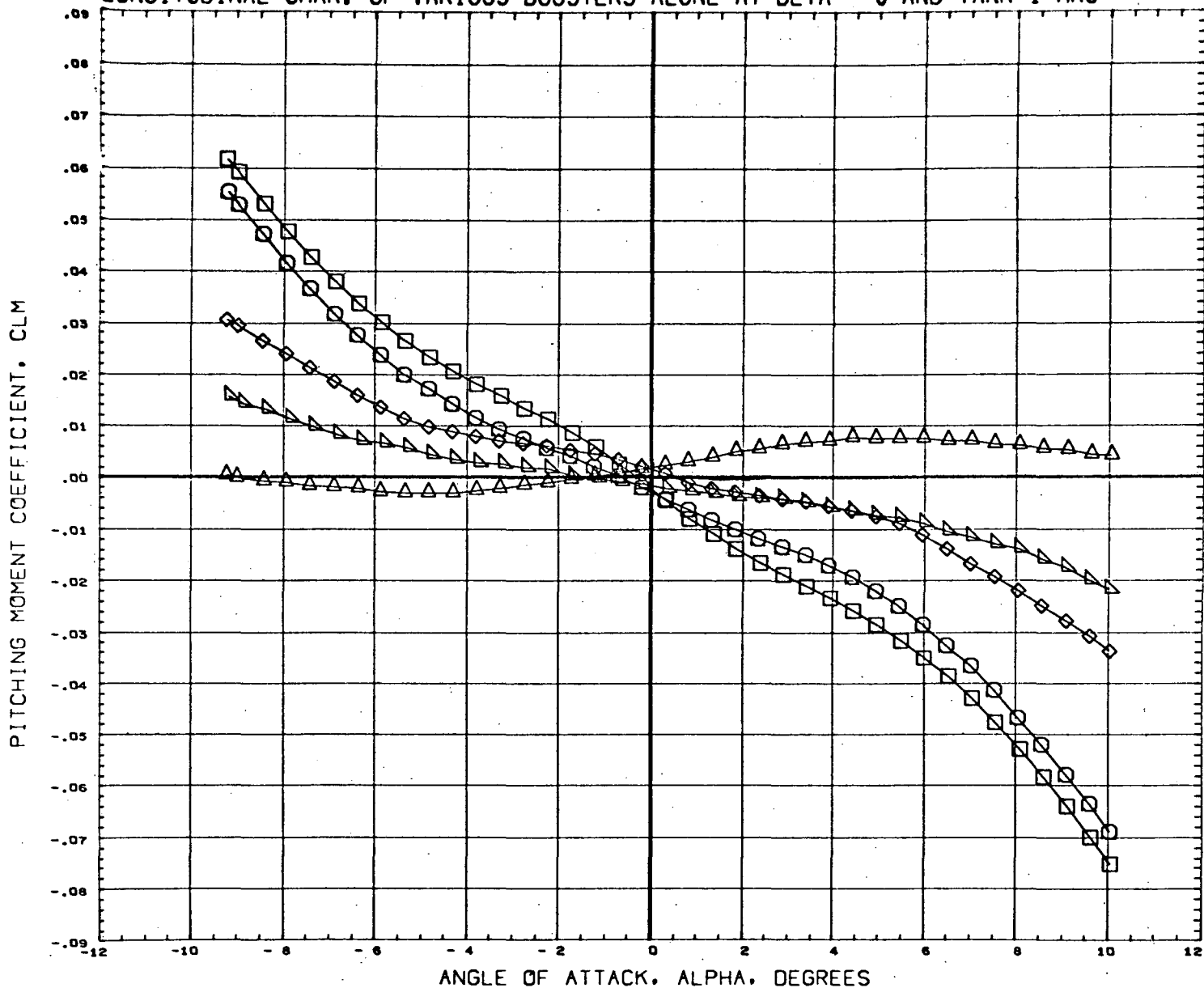
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 316

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

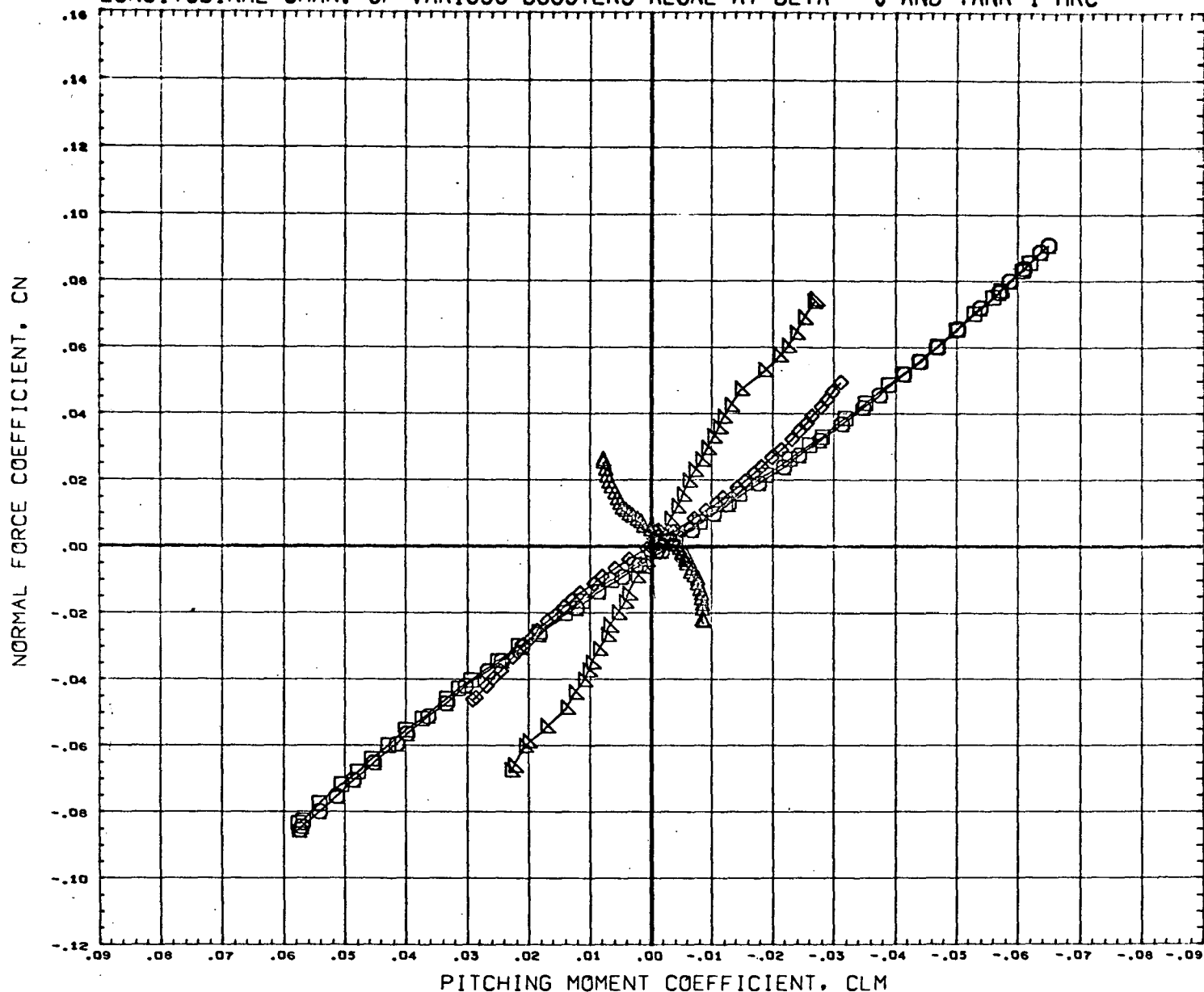
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	862.0004 IN.
XHRP	557.0004 IN.
YHRP	277.3004 IN.
ZHRP	200.0004 IN.
SCALE	0.0060

MACH 4.47

PAGE 317

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

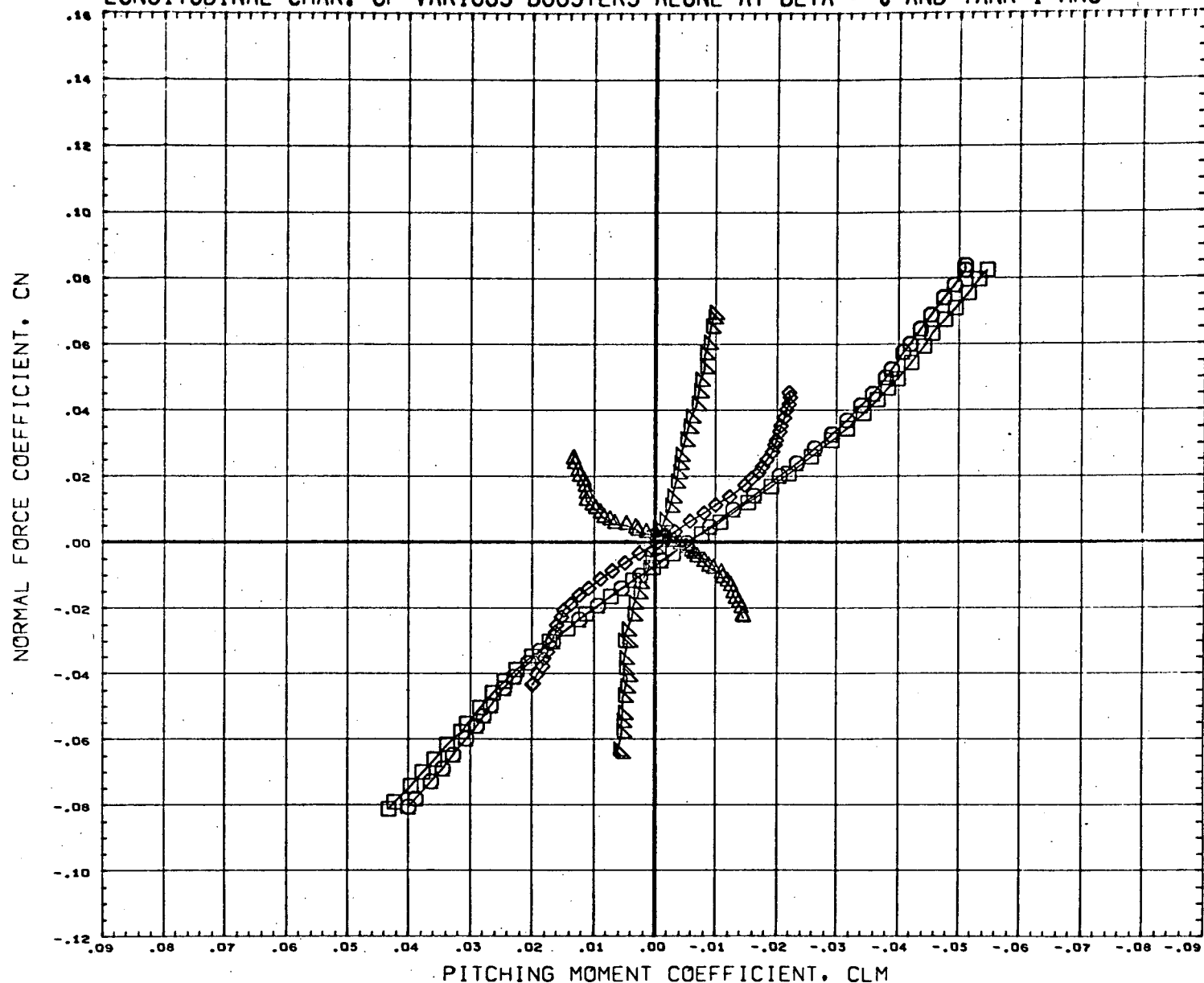
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 318

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

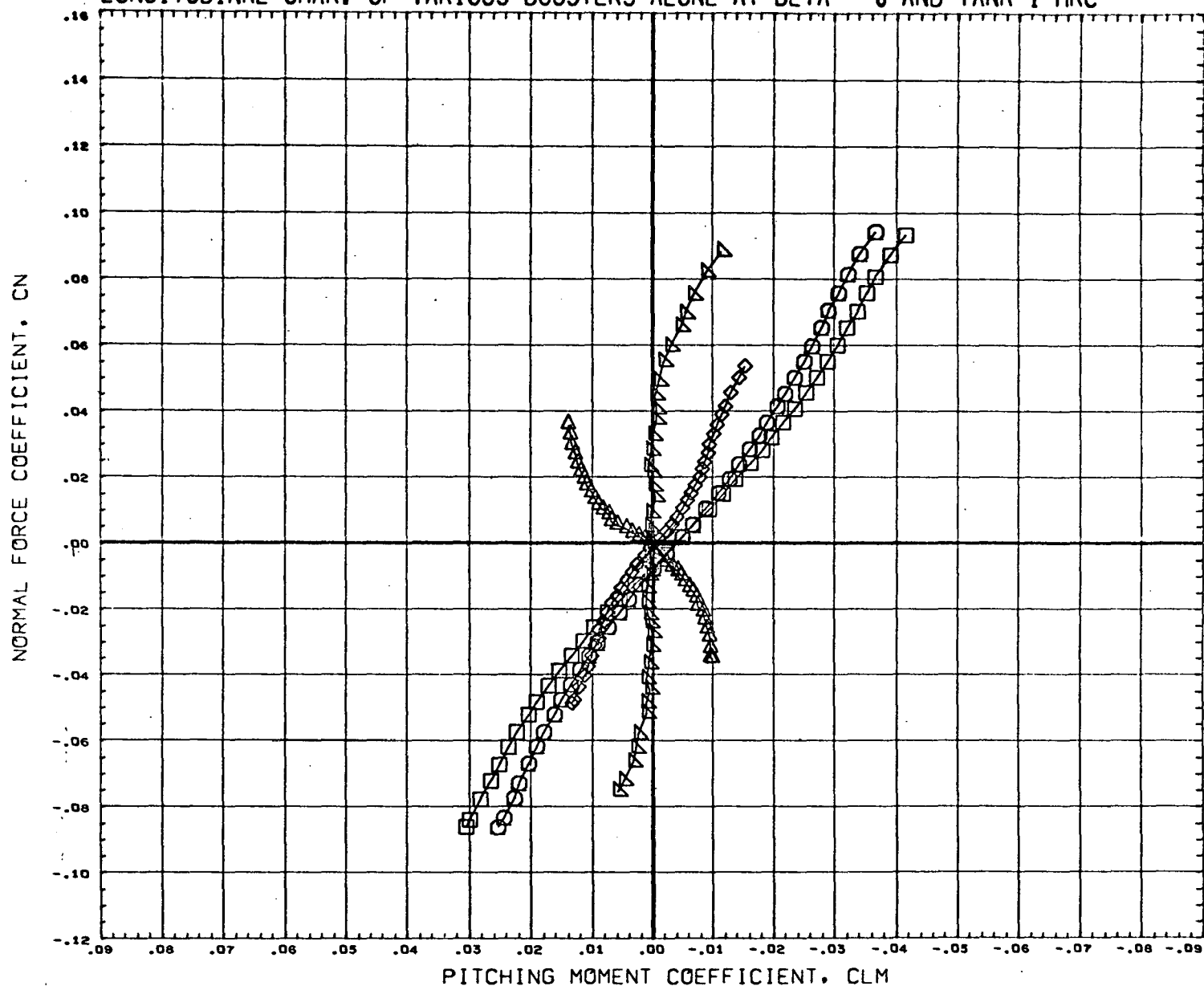
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 319

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	○	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	□	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	◇	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	△	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	▽	MDAC S-222 BOOSTER ALONE (T1-CG) B4

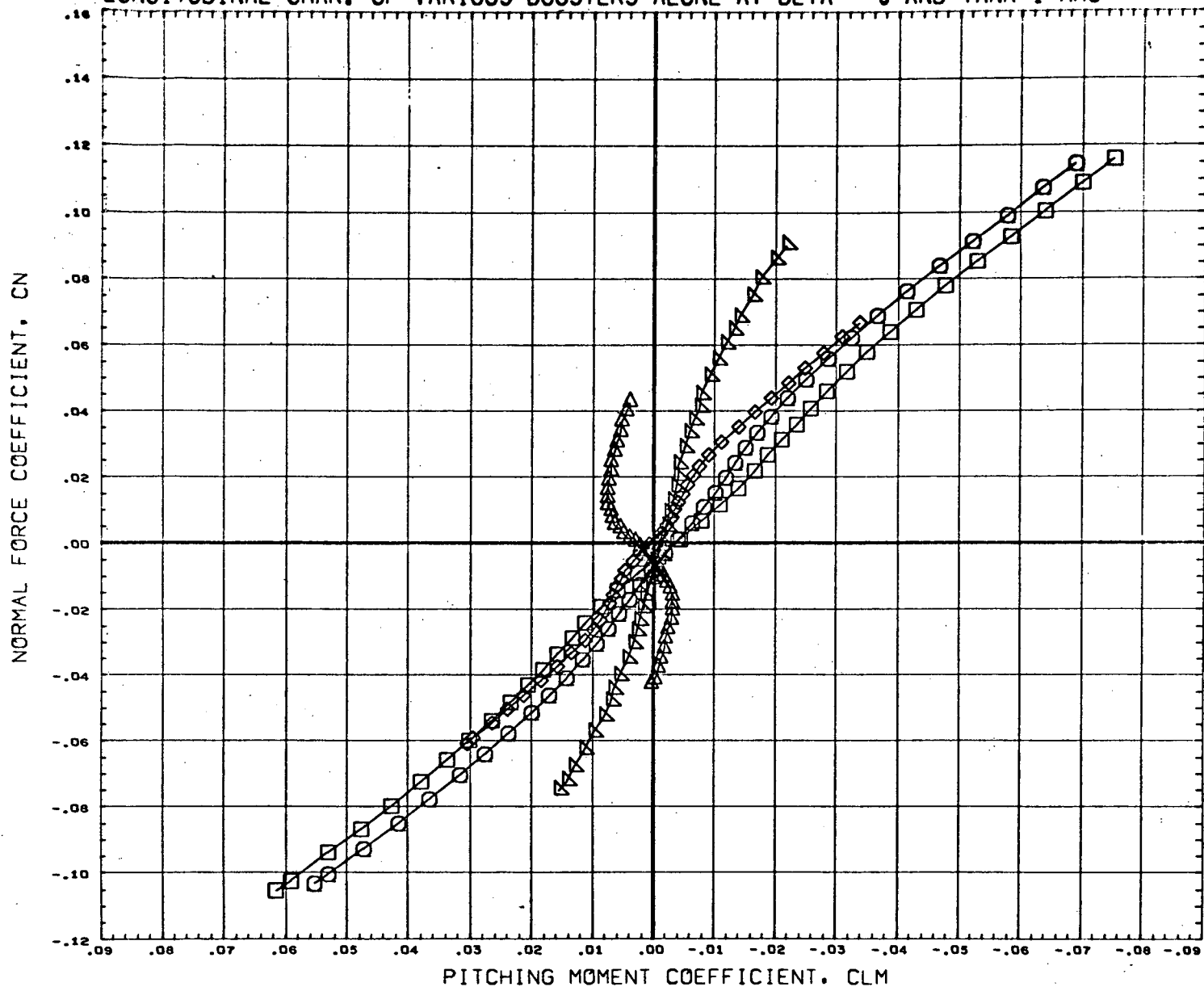
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 320

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

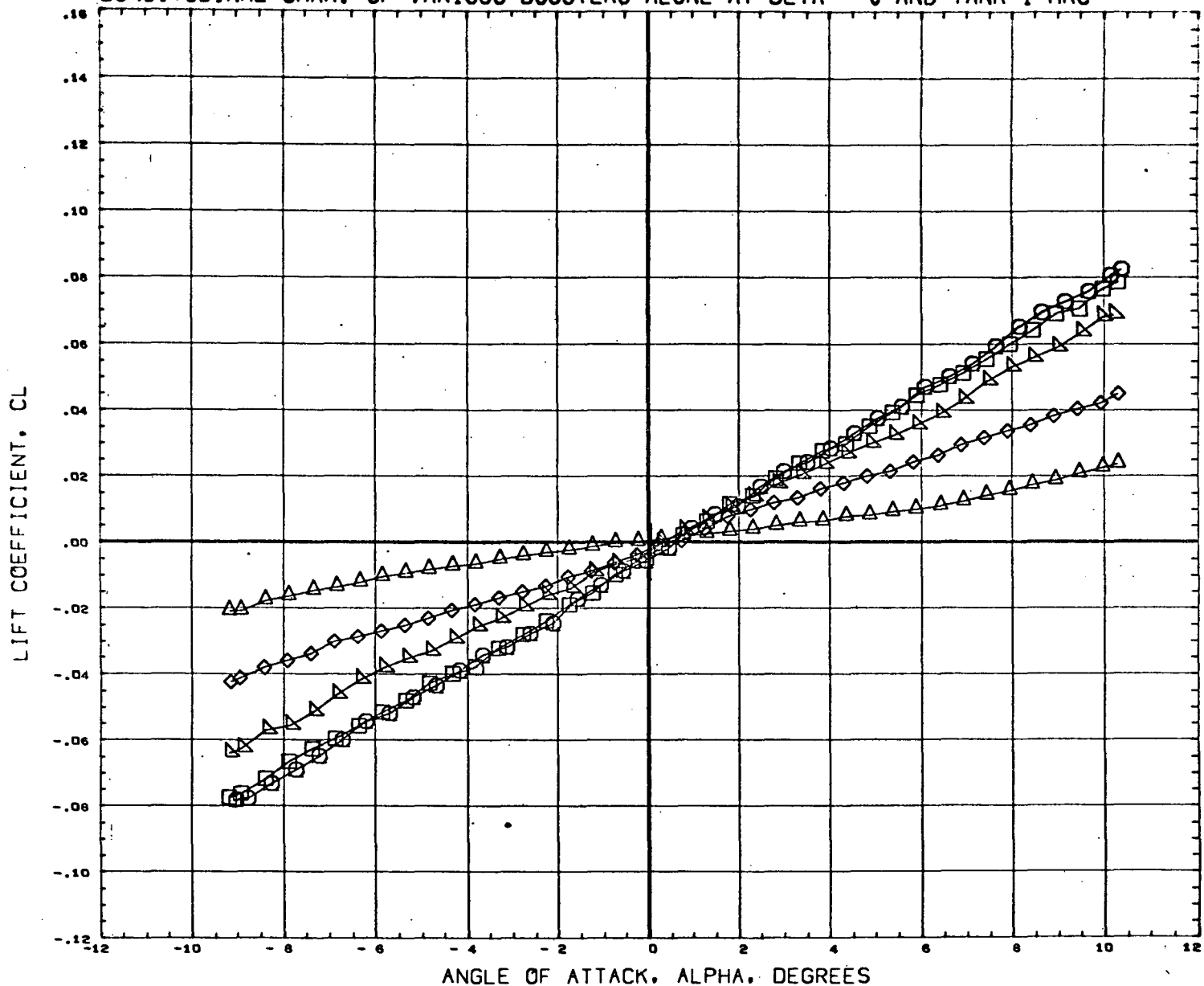


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000	LREF 609.5004 IN.
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000	BREF 882.0004 IN.
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000	XMRP 557.0004 IN.
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000	YMRP 277.3004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 4.47

PAGE 321

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

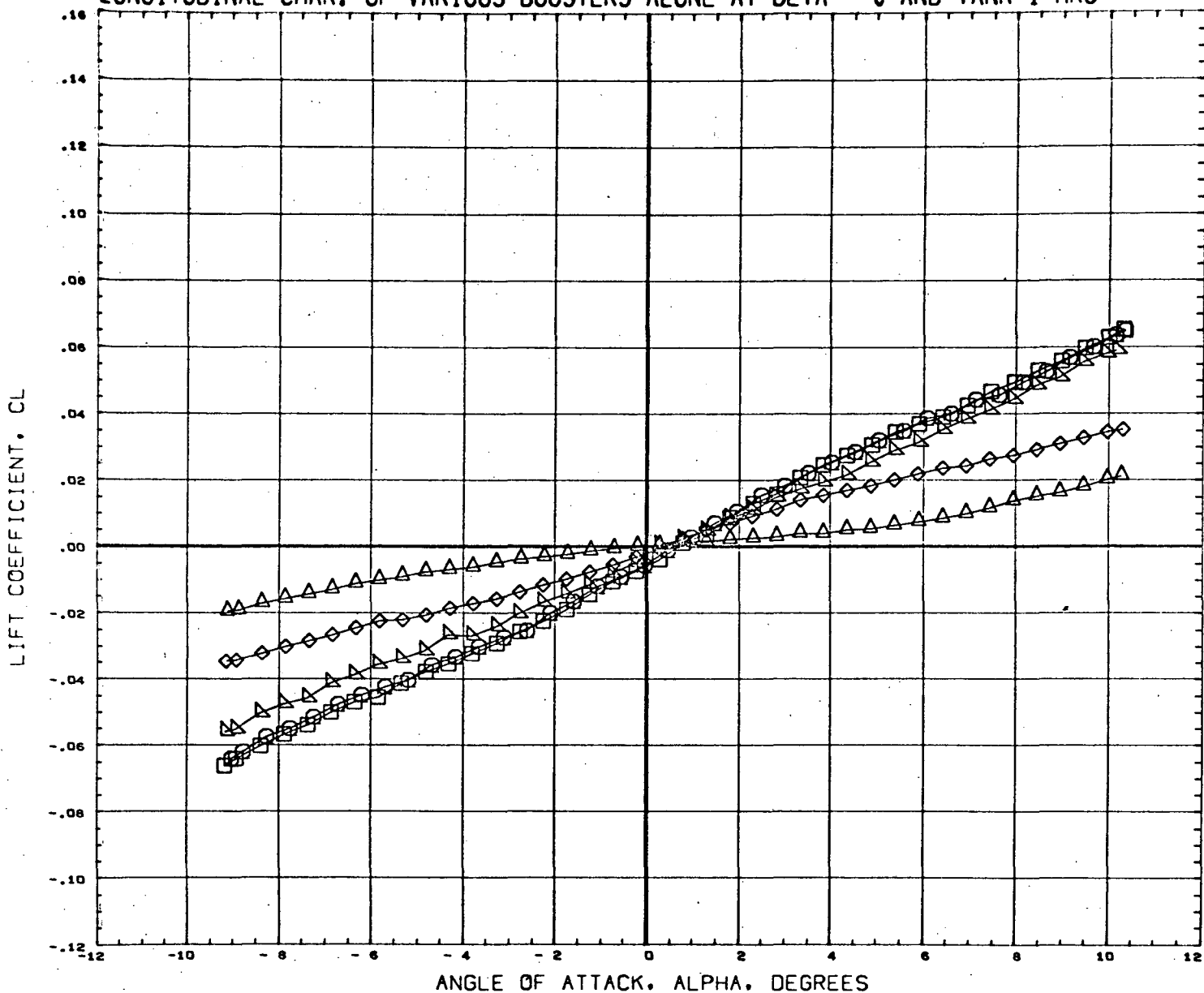
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 322

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

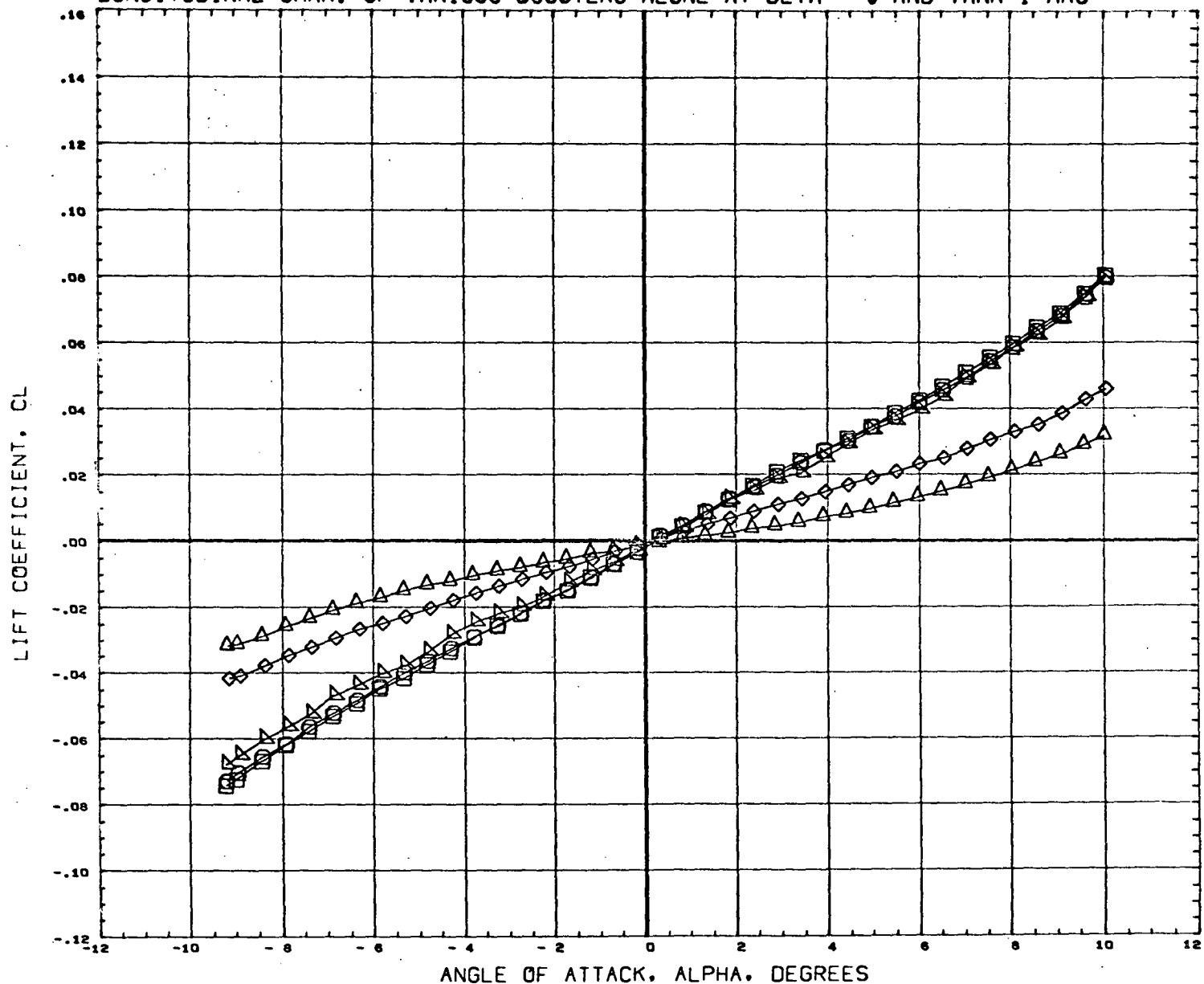
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 323

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



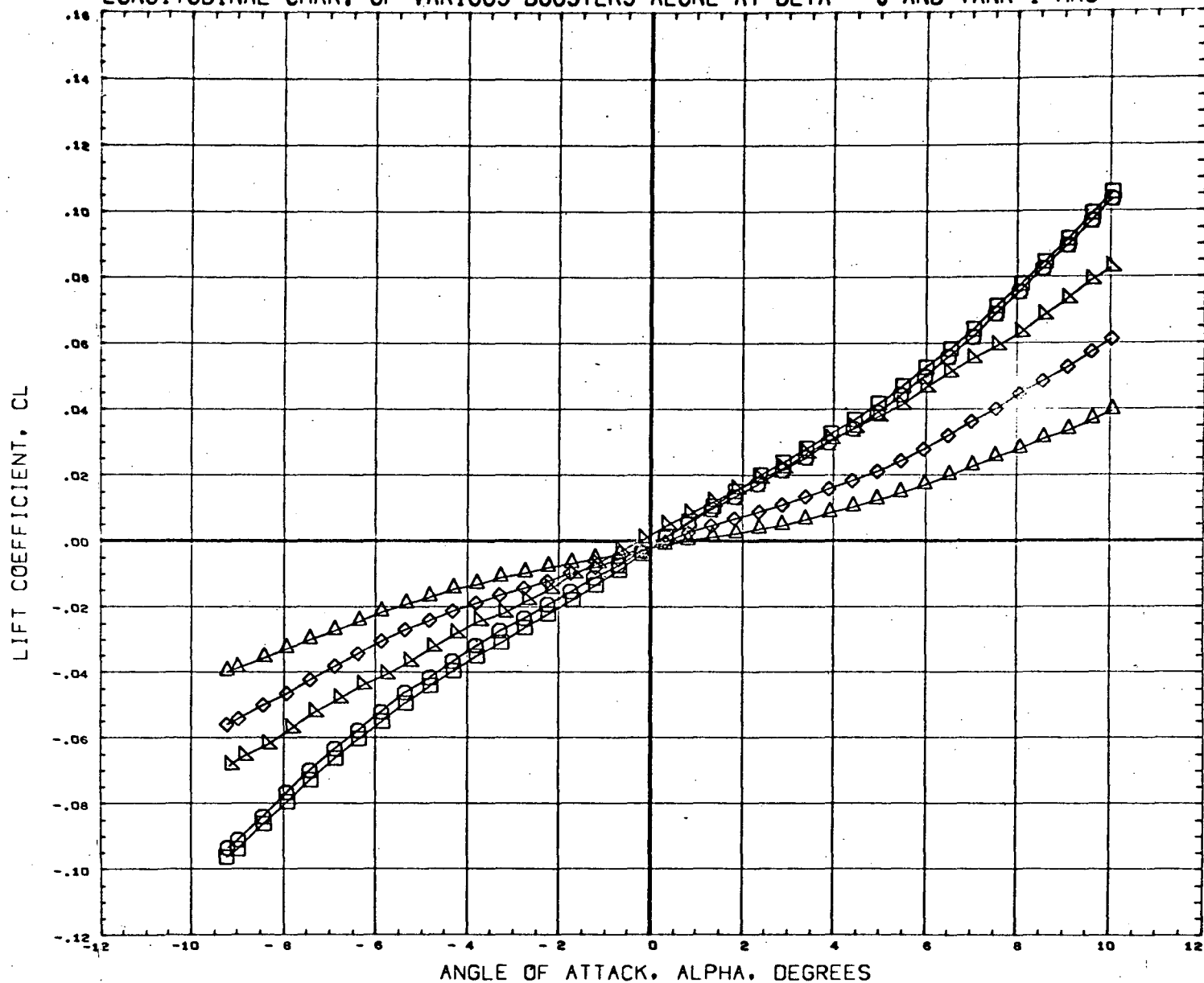
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 324

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

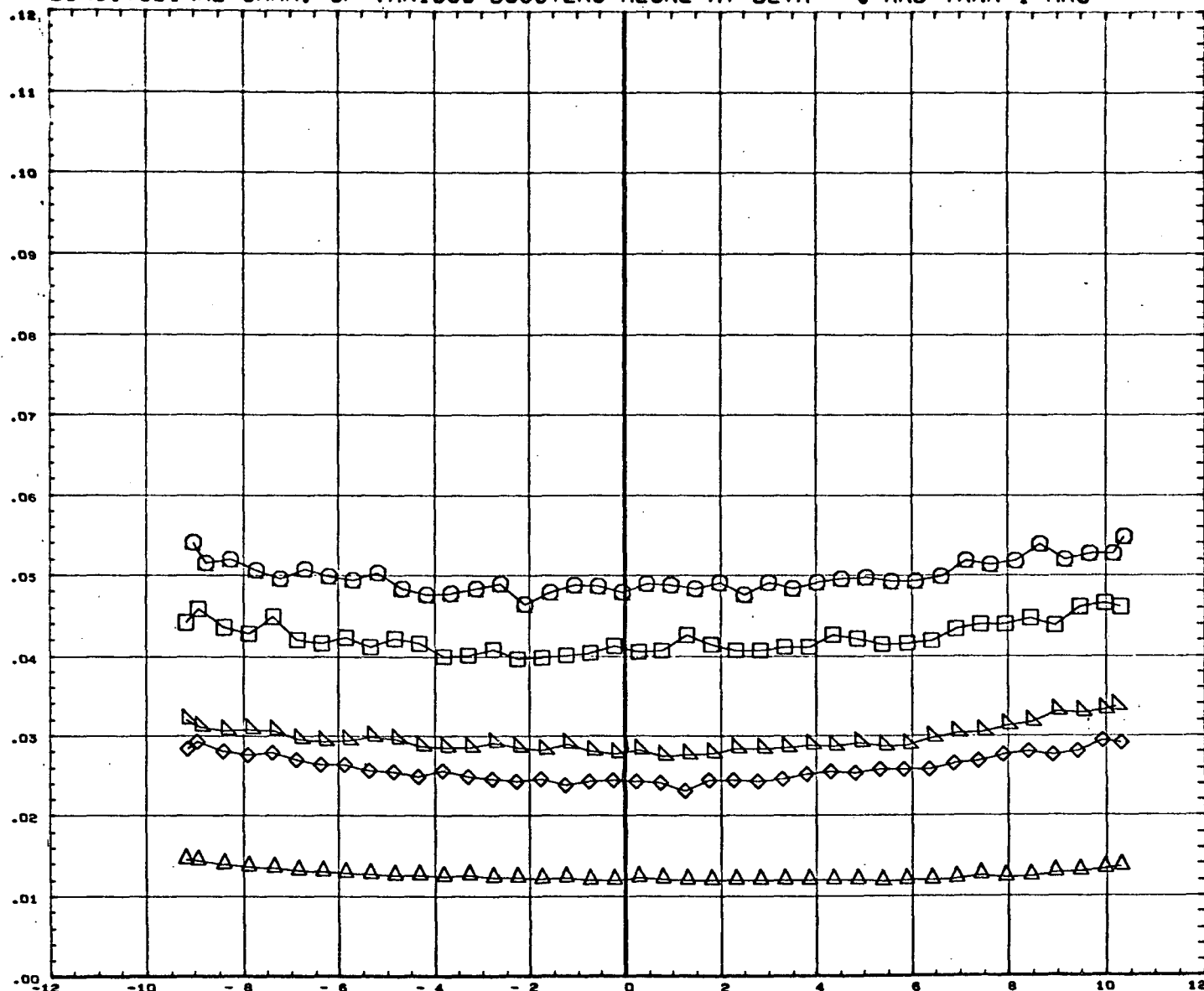
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 325

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-C6) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-C6) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-C6) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-C6) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-C6) B4

BETA
0.000
0.000
0.000
0.000
0.000

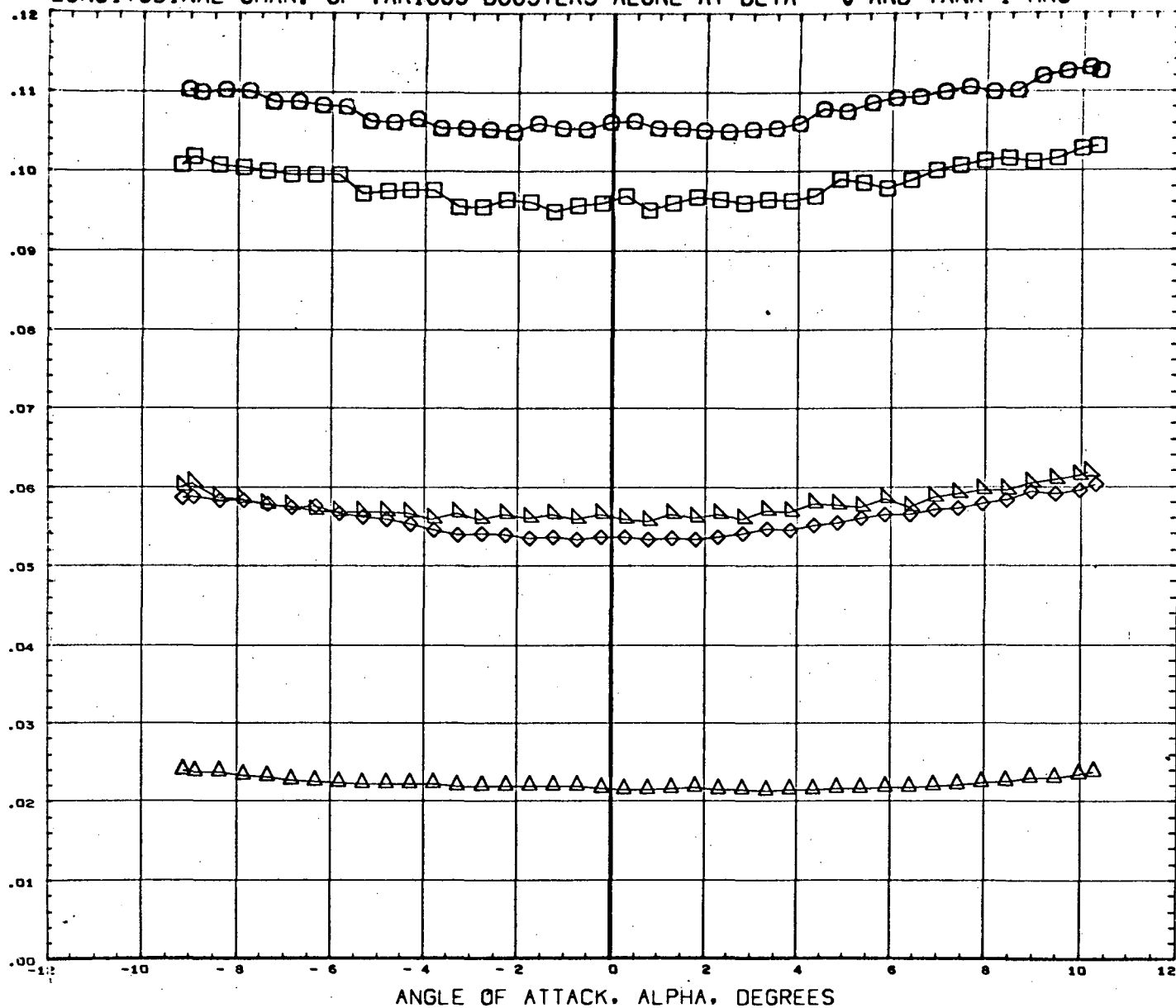
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 326

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

FOREBODY DRAG COEFFICIENT, CDF



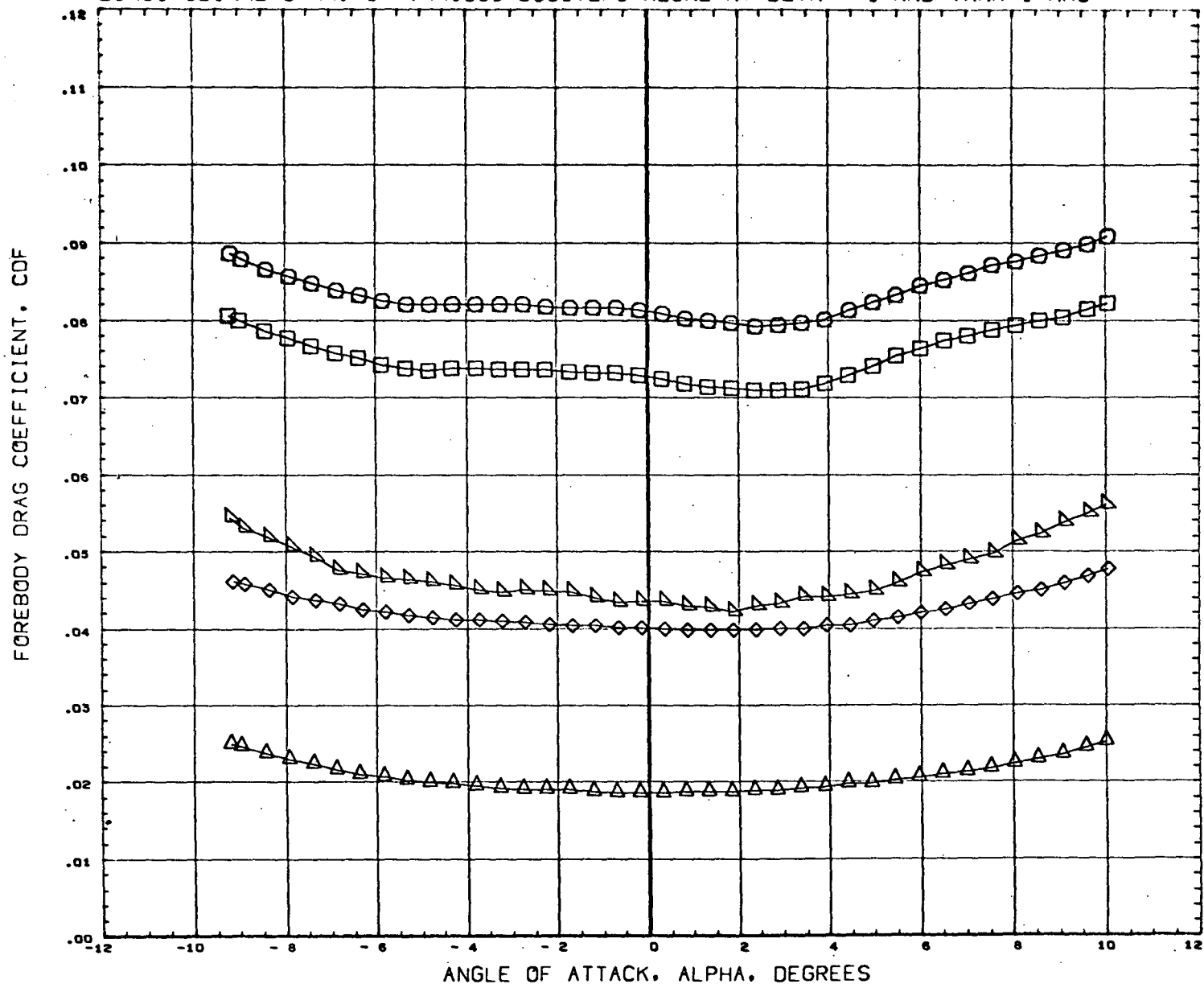
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(C078A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(C078A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(C078A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(C078A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(C078A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 327

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

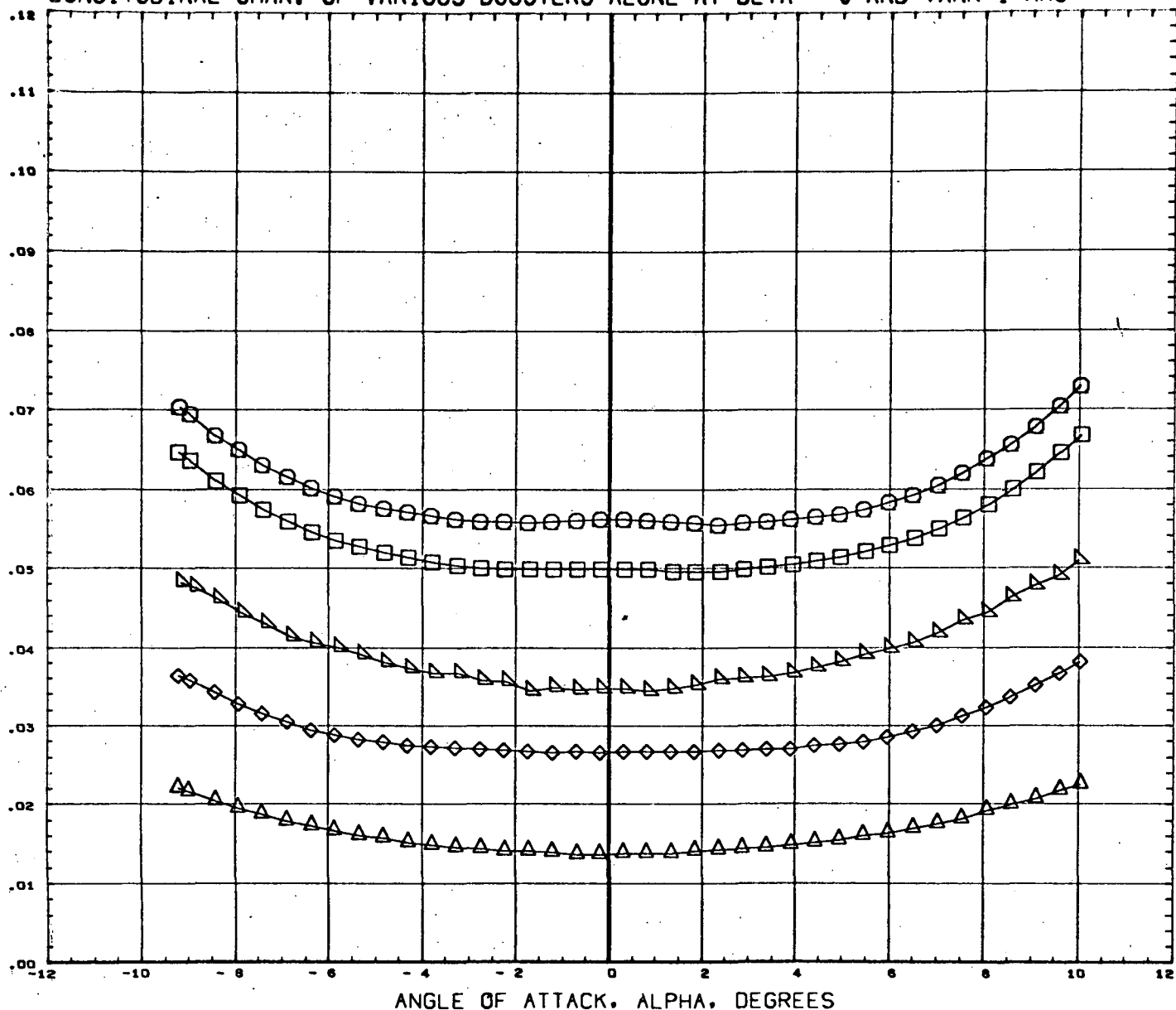
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 882.0004 IN.
XMRP 357.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 328

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

FOREBODY DRAG COEFFICIENT, CDF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	○	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	□	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	△	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	◇	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	▽	MDAC S-222 BOOSTER ALONE (T1-CG) B4

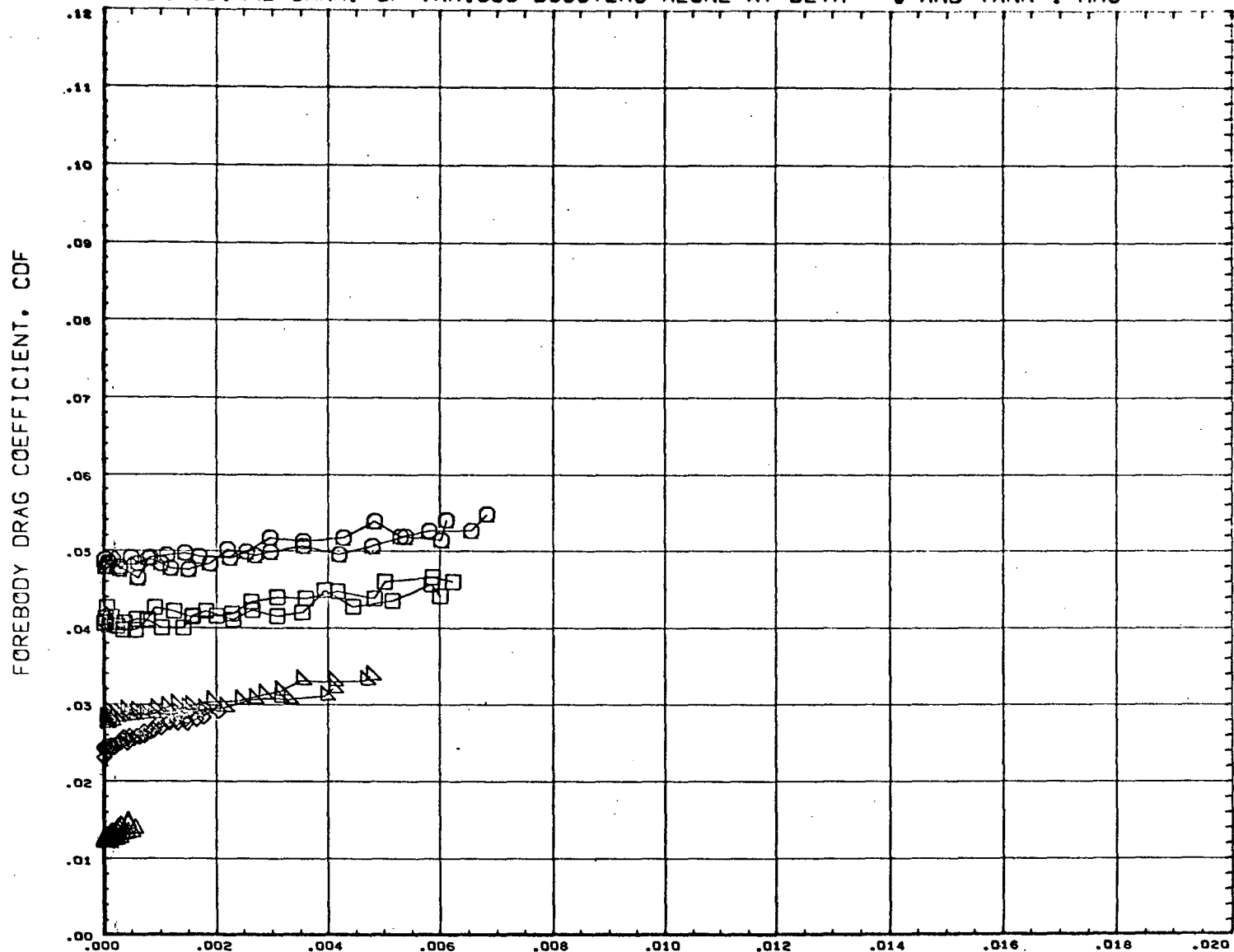
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 329

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



LIFT COEFFICIENT SQUARED. CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

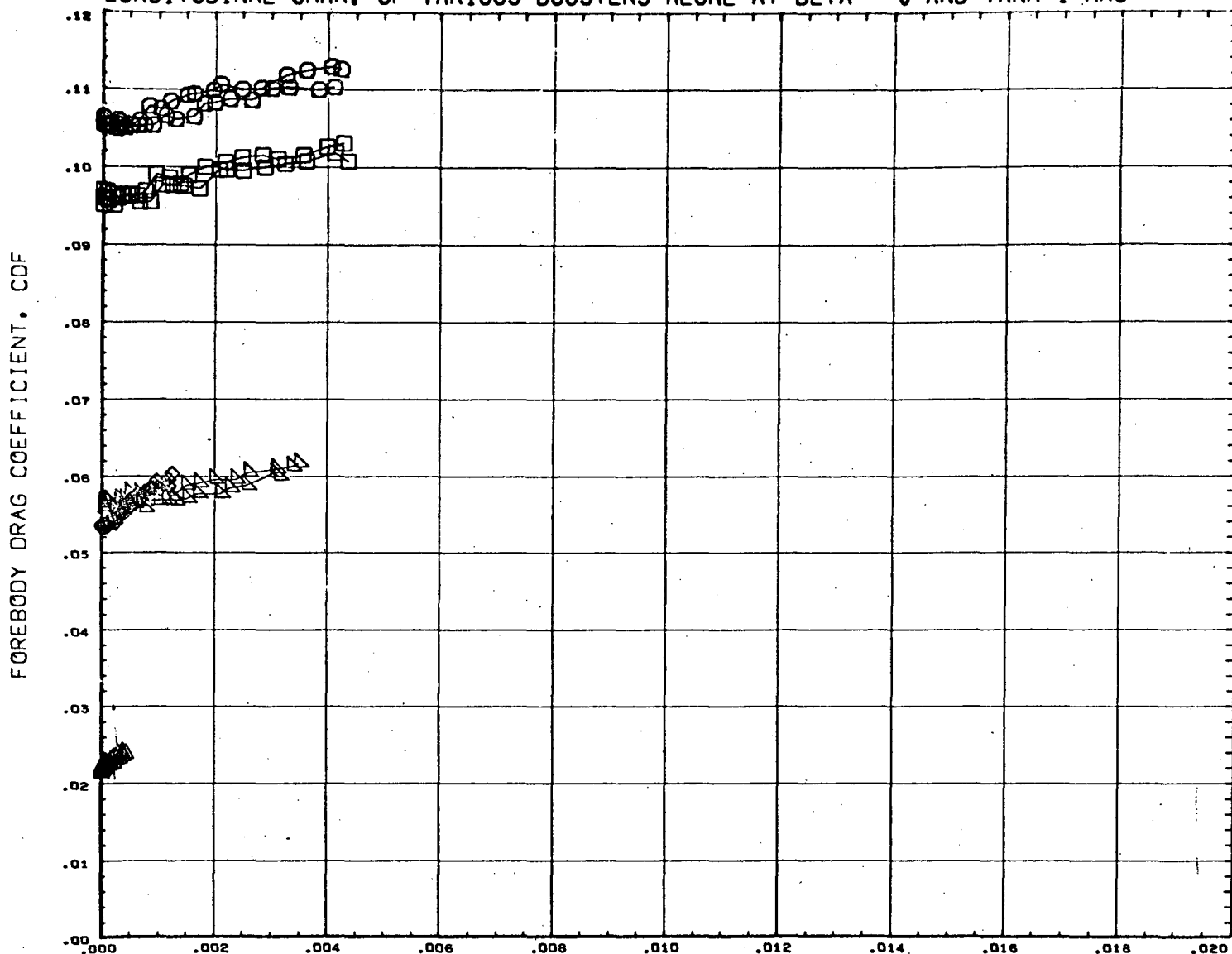
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 330

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

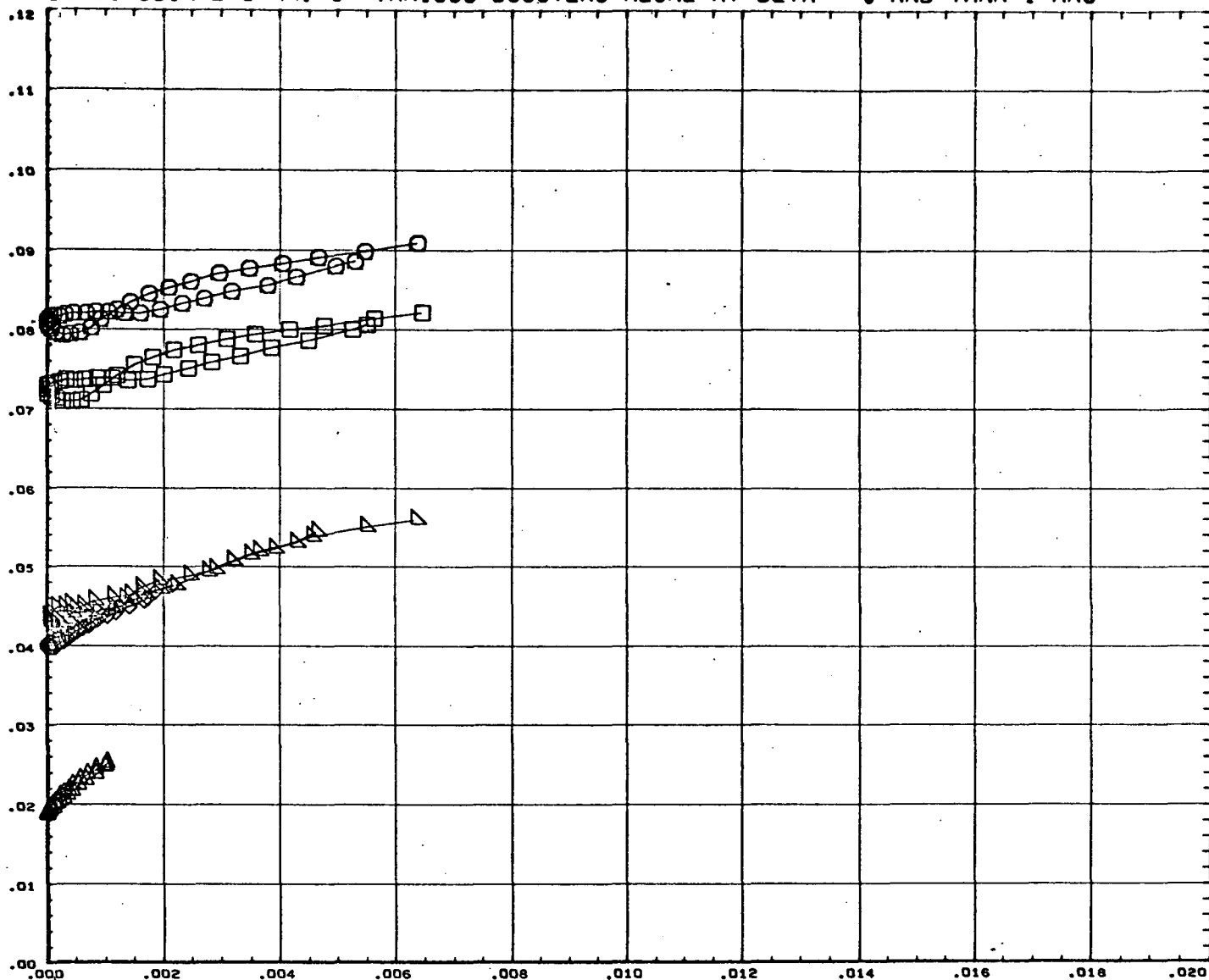
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 331

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

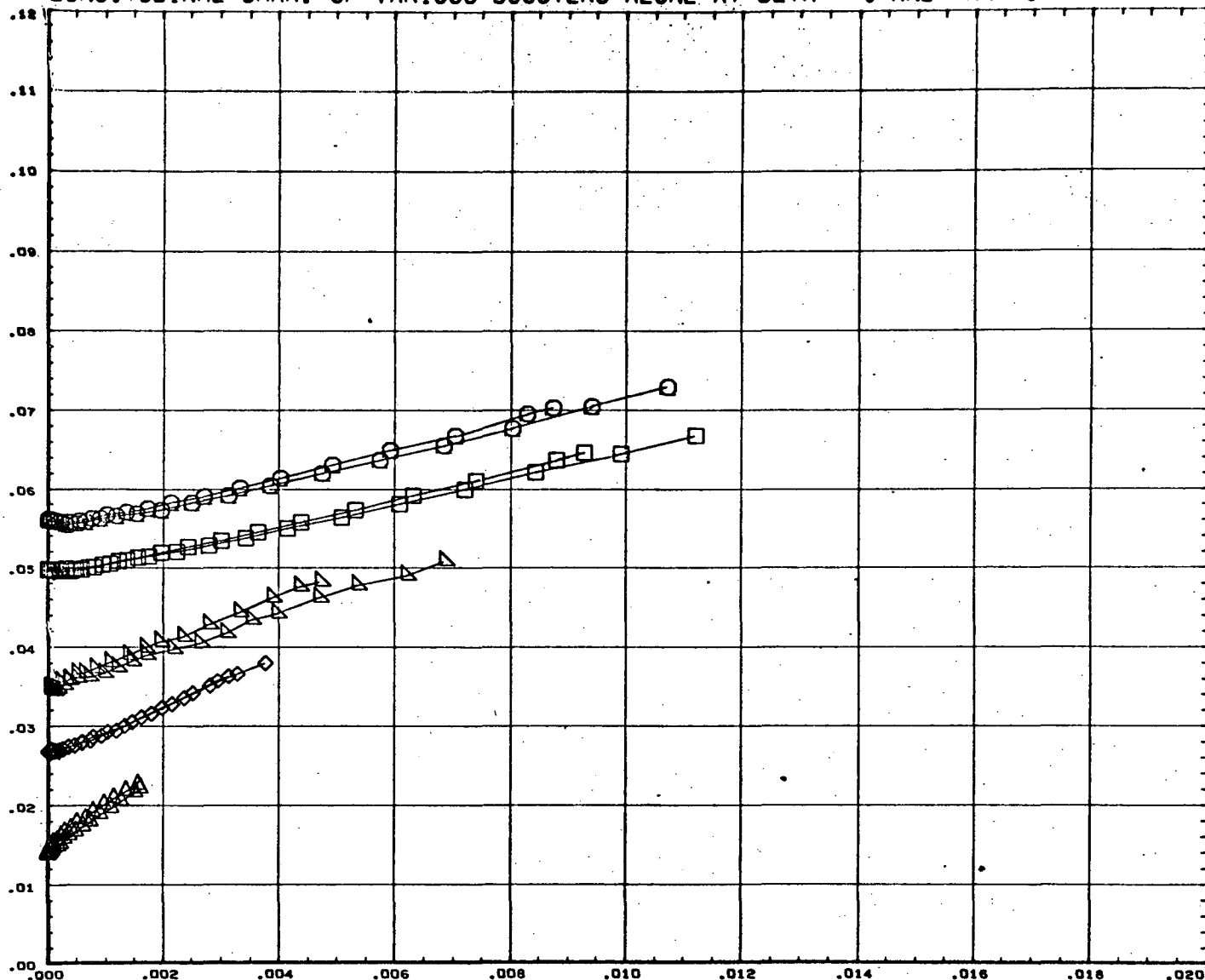
REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	557.0004 IN.
YMRP	277.3004 IN.
ZMRP	200.0004 IN.
SCALE	0.0060

MACH 2.20

PAGE 332

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQ

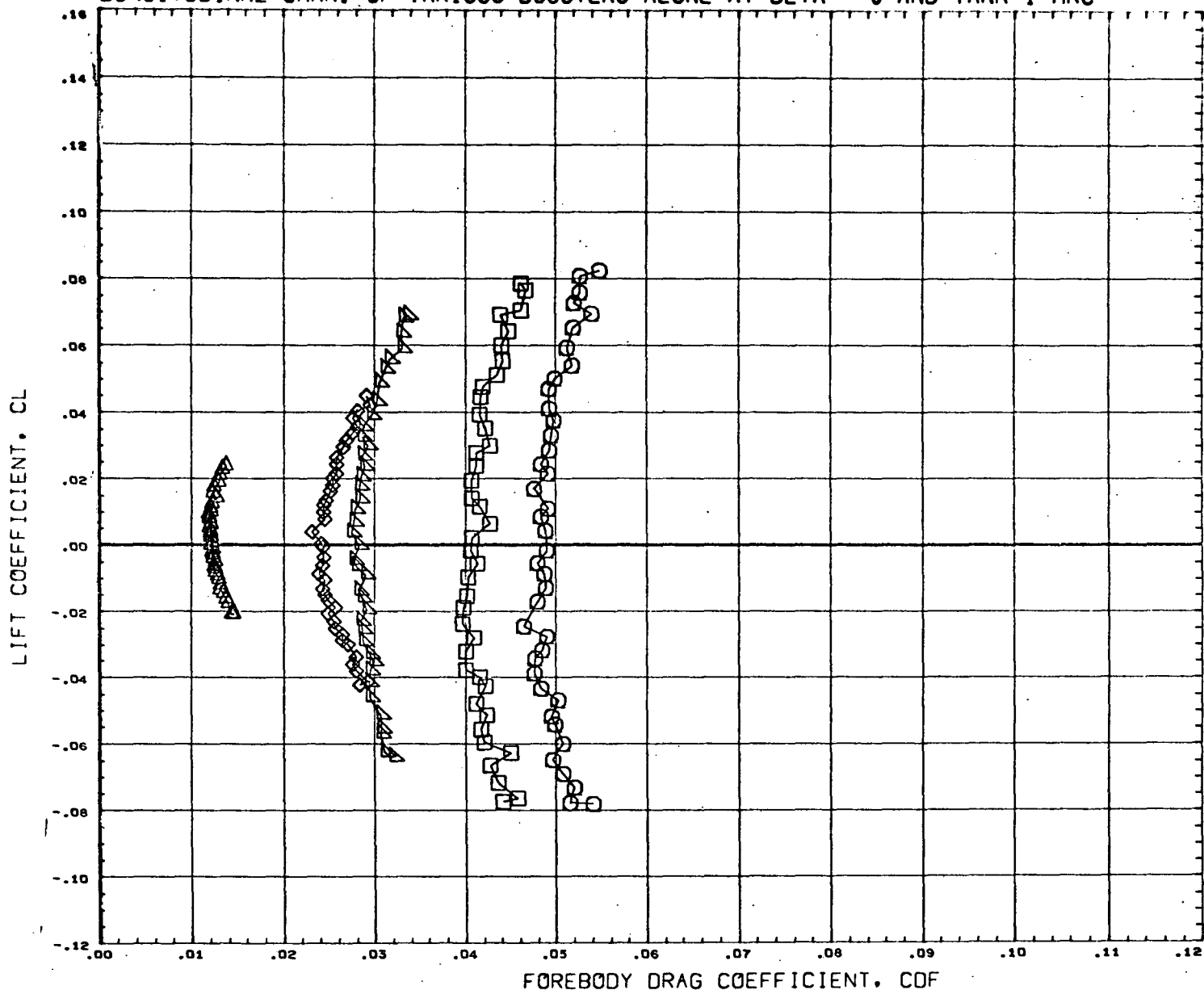
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	537.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 333

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG)	B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG)	B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG)	B4

BETA

0.000
0.000
0.000
0.000
0.000

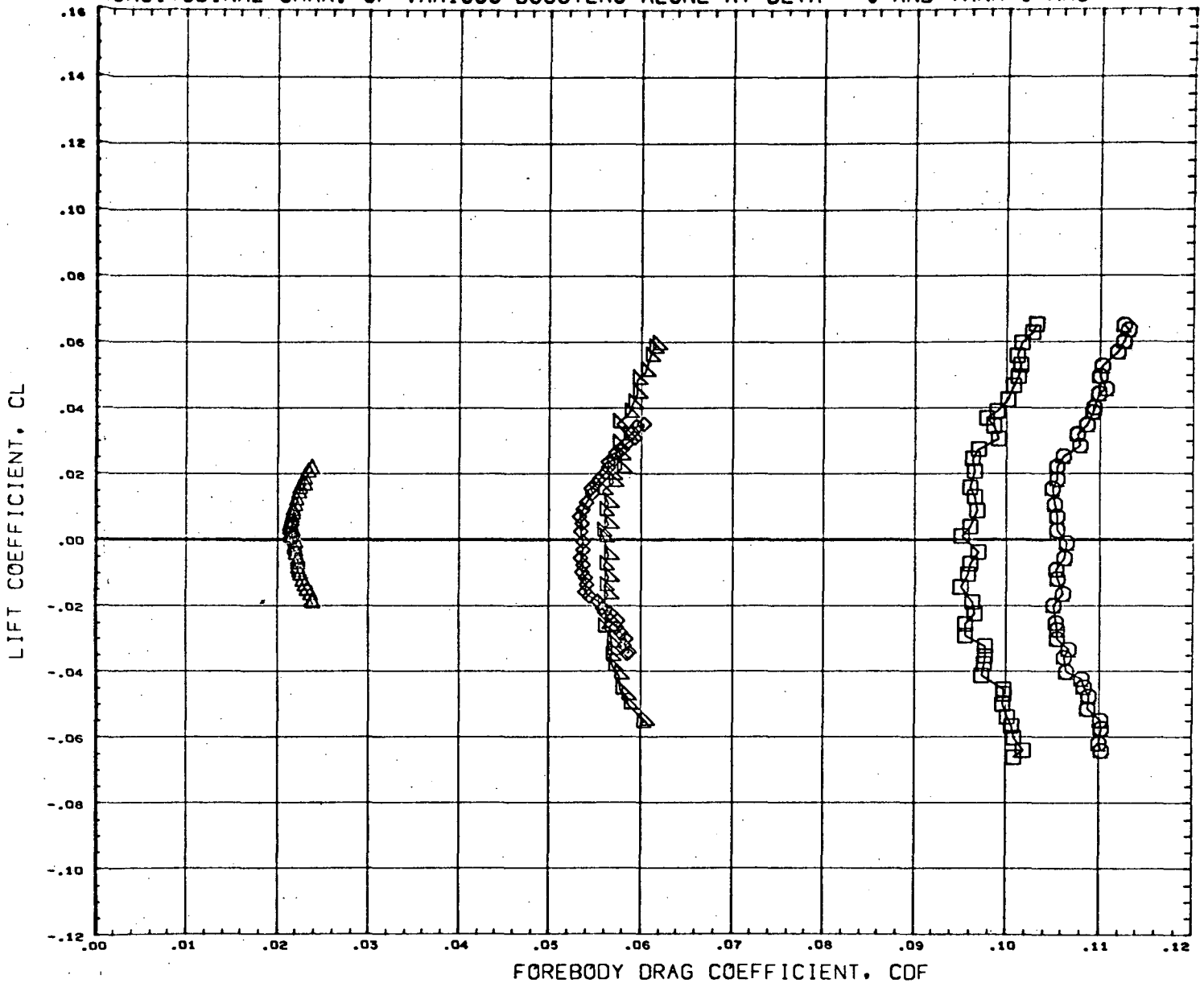
REFERENCE INFORMATION

SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 334

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



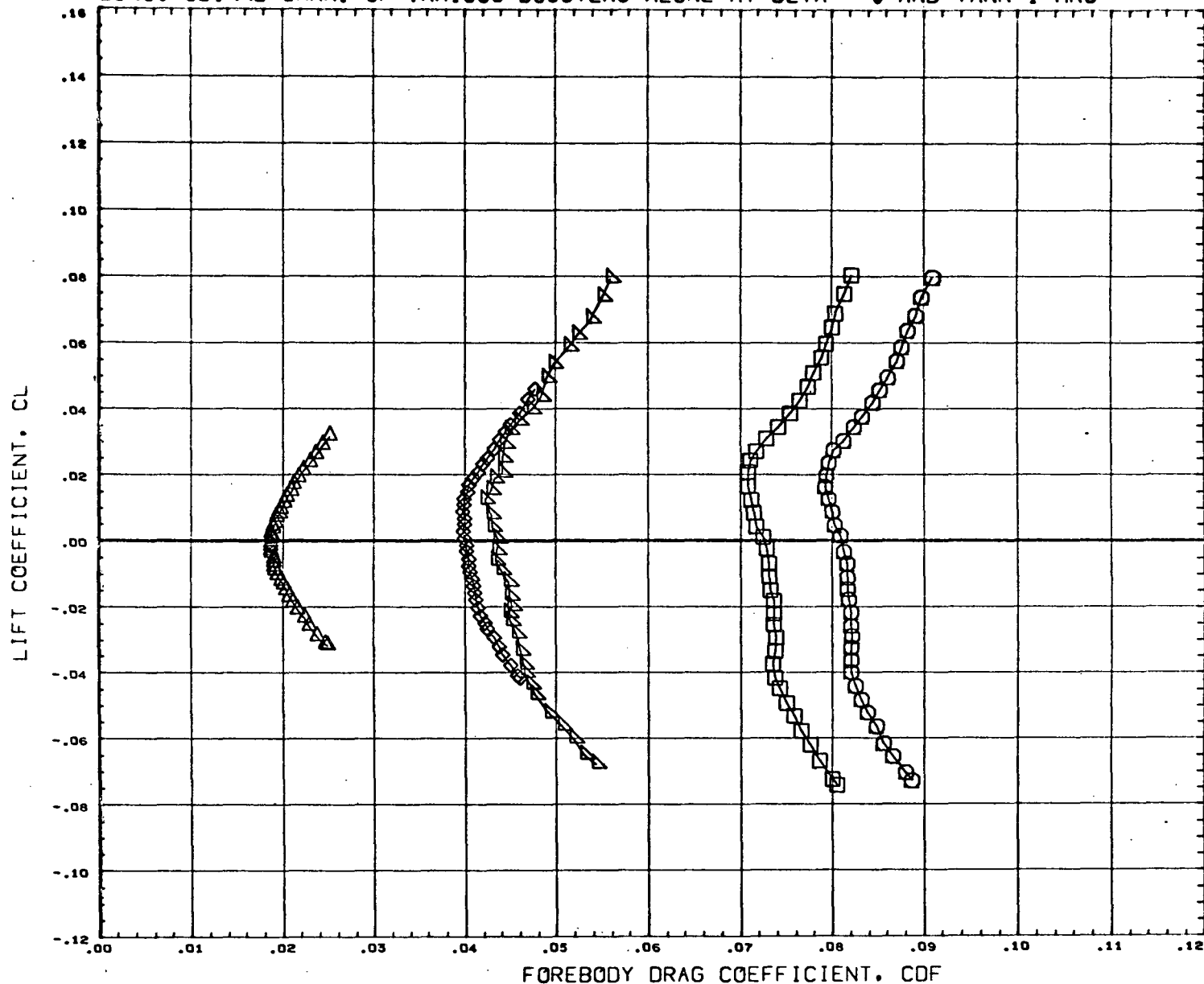
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 335

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



FOREBODY DRAG COEFFICIENT, CDF

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

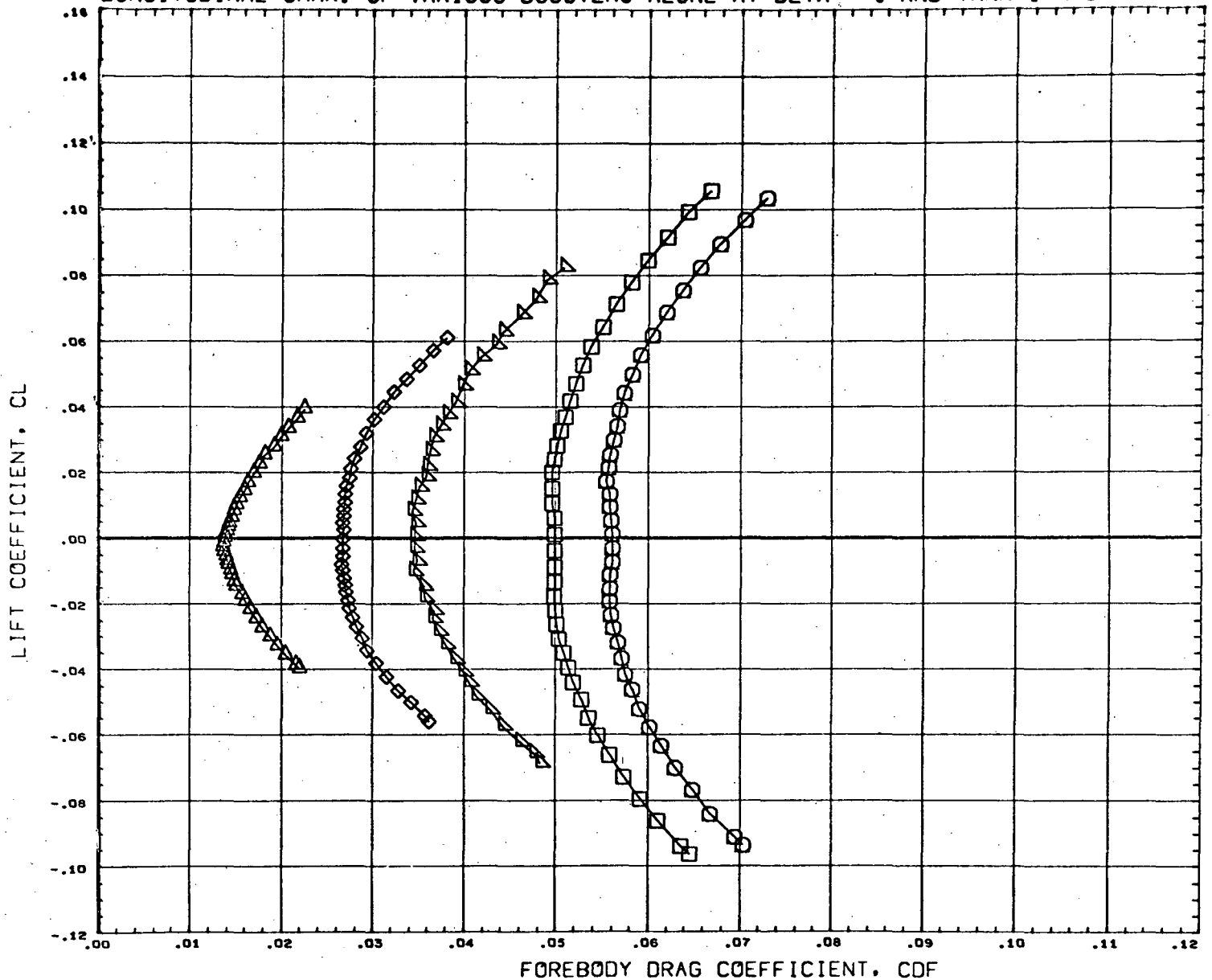
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
YMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 336

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

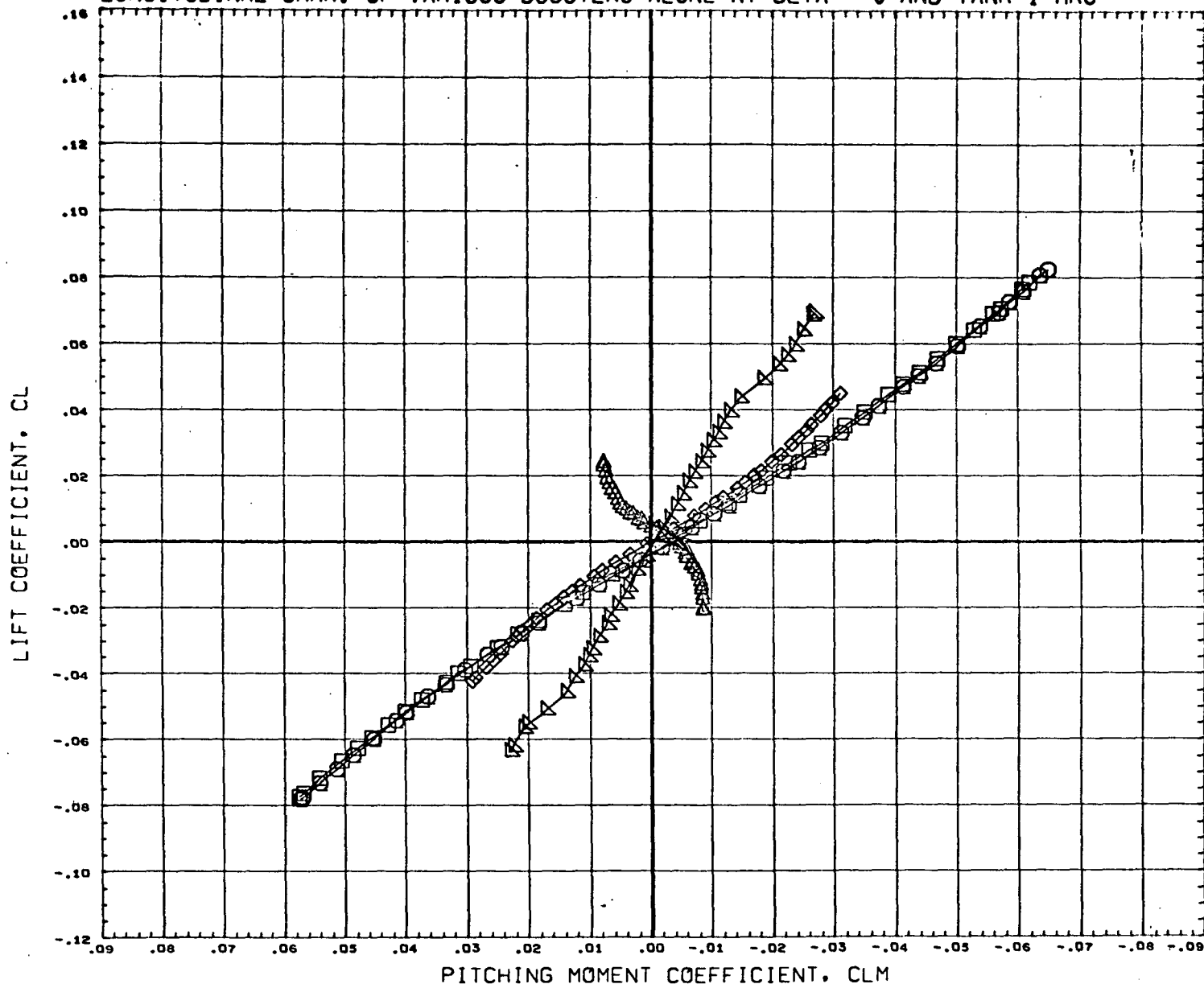
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

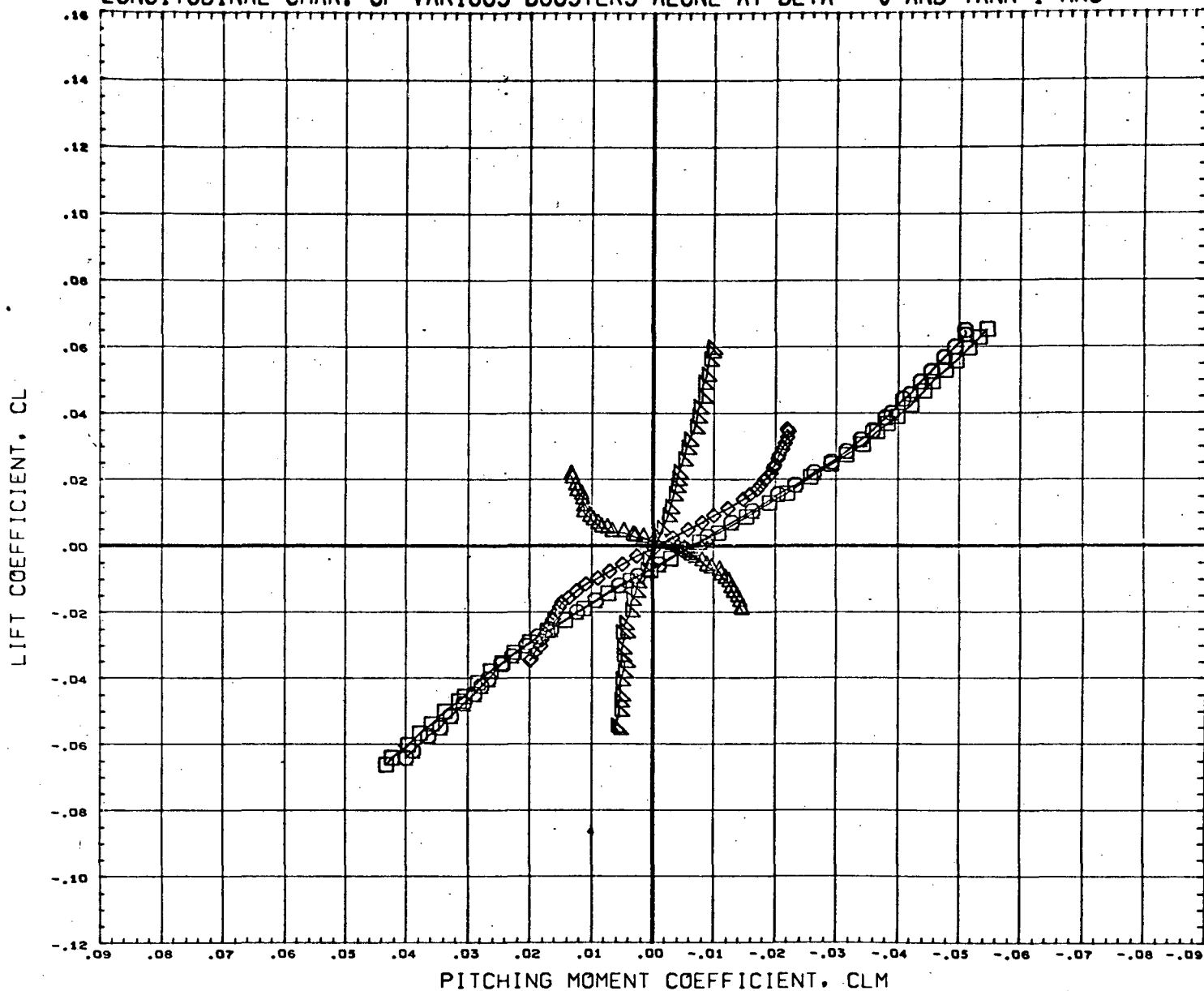
PAGE 337

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000	LREF 609.5004 IN.
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000	BREF 882.0004 IN.
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000	XMRP 557.0004 IN.
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000	YMRP 277.3004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	

BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

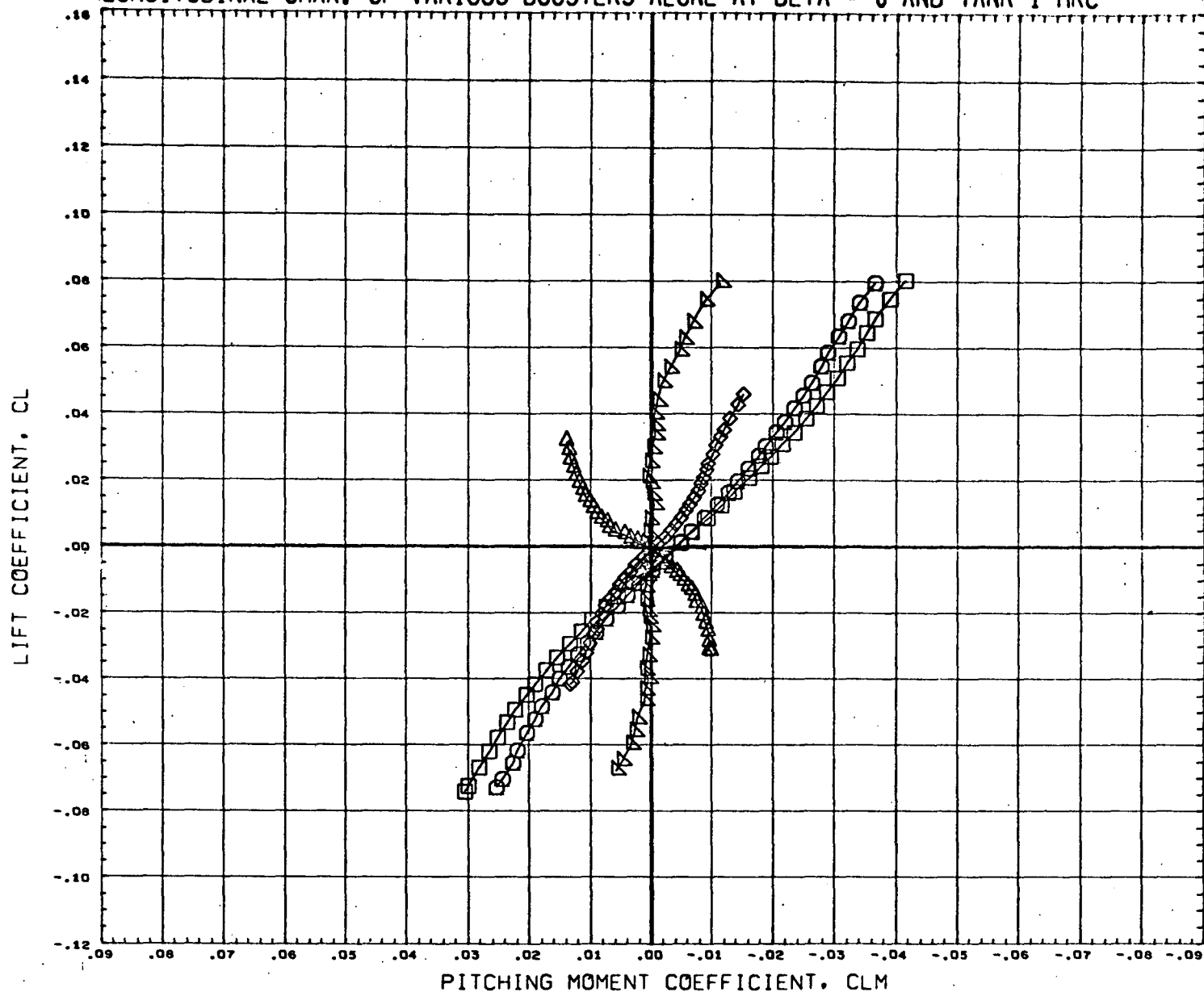
MACH

1.08

PAGE 339

C. 6

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

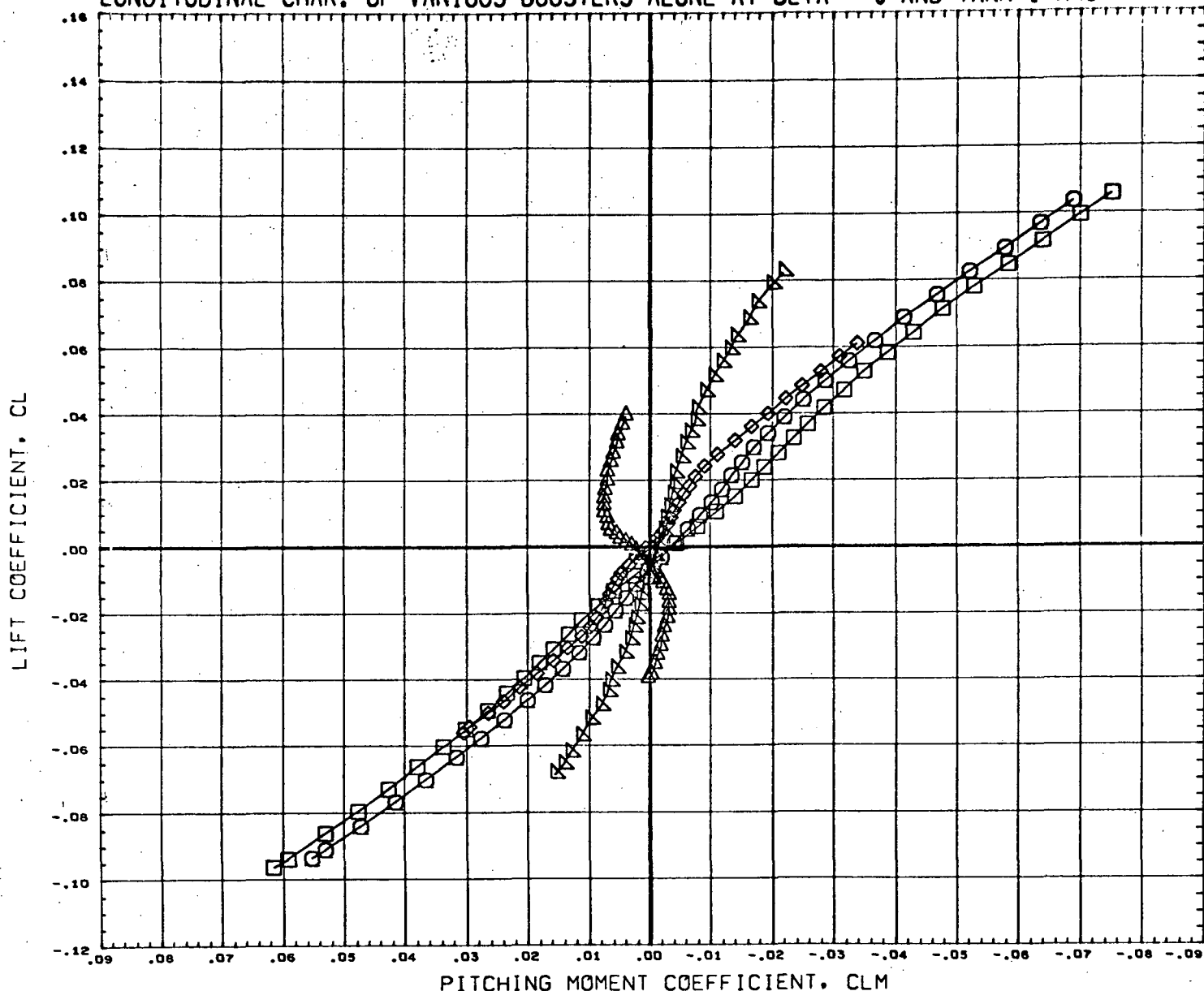
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

2.20

PAGE 340

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



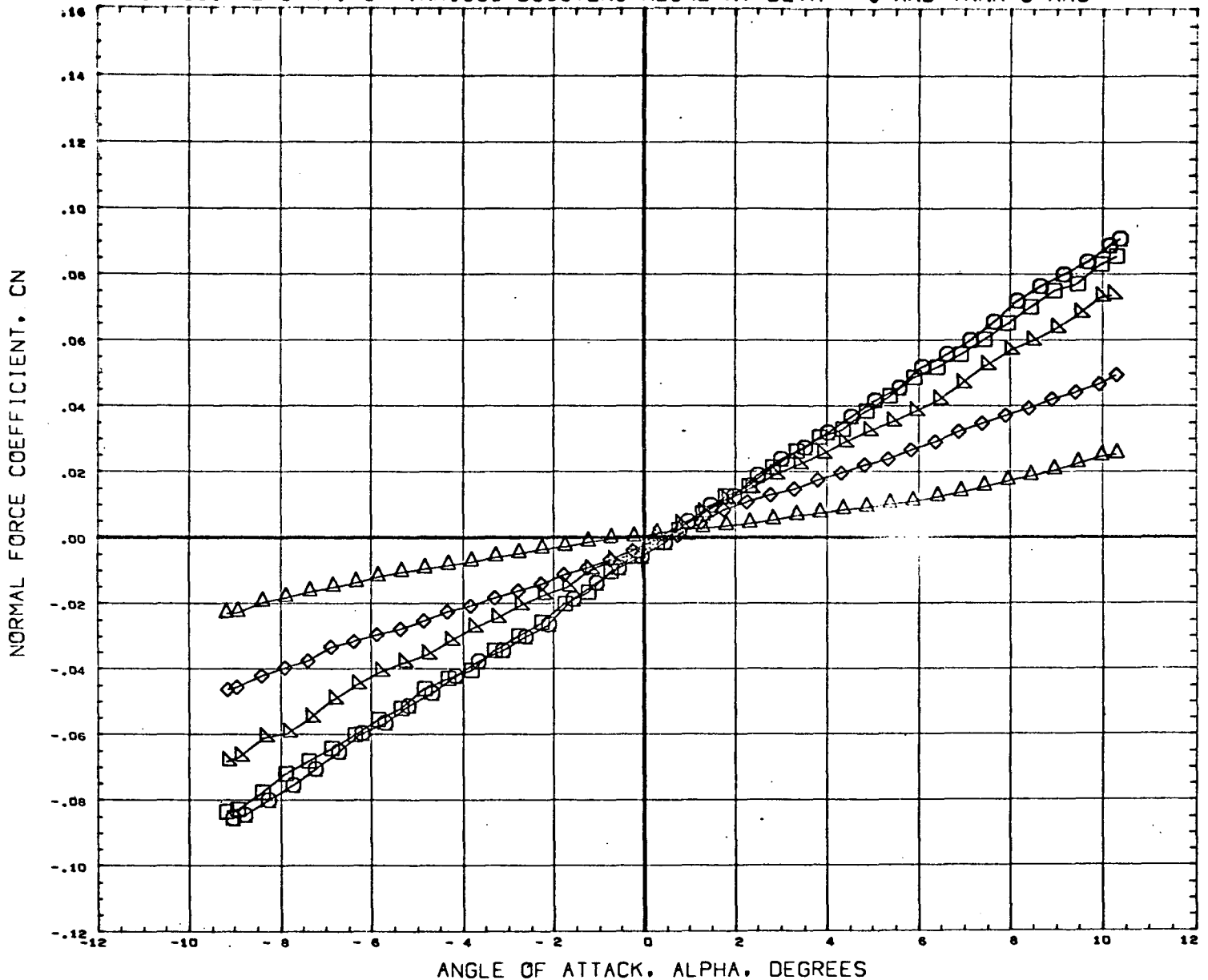
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(CD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(CD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(CD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(CD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 341

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

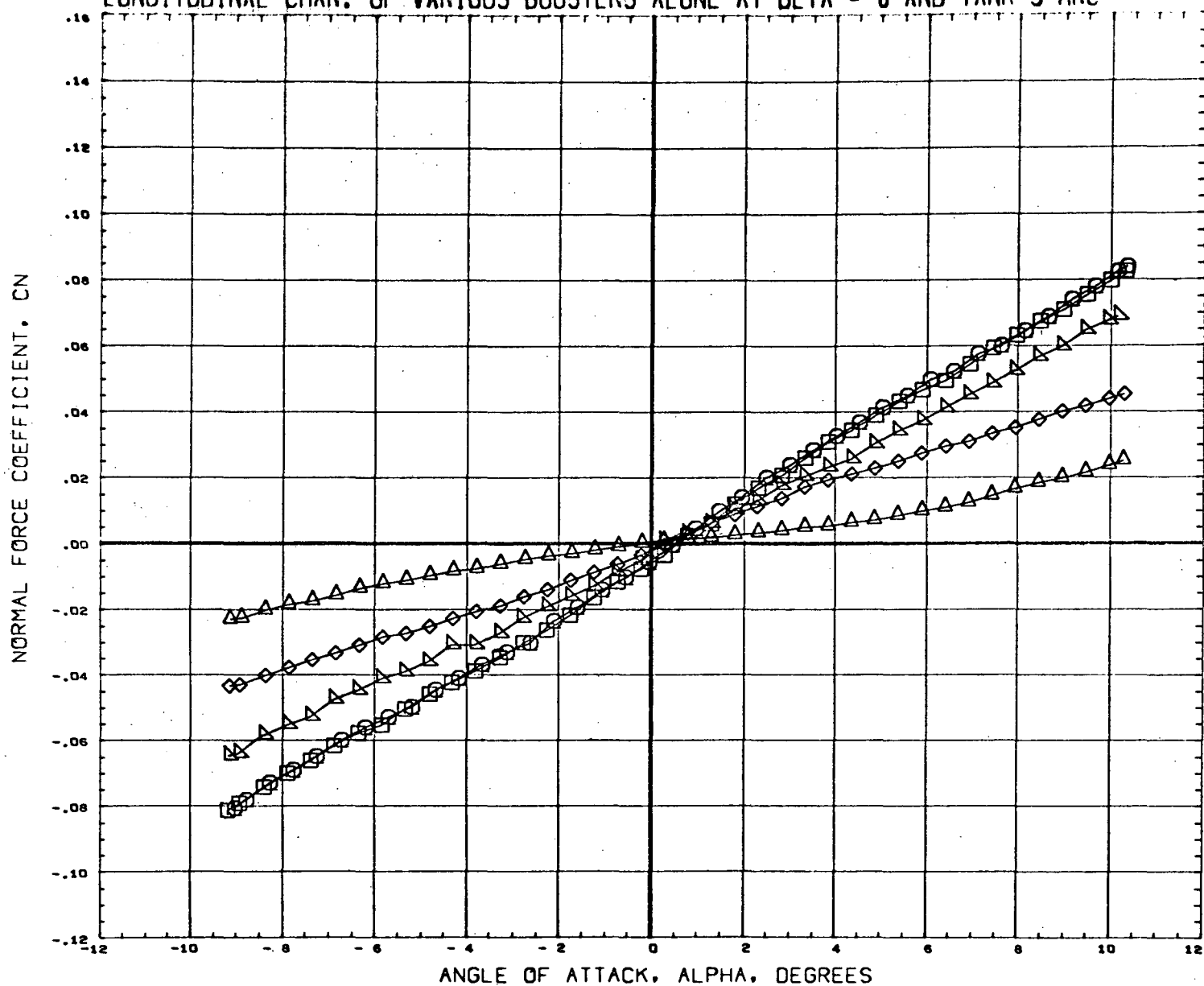
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 342

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

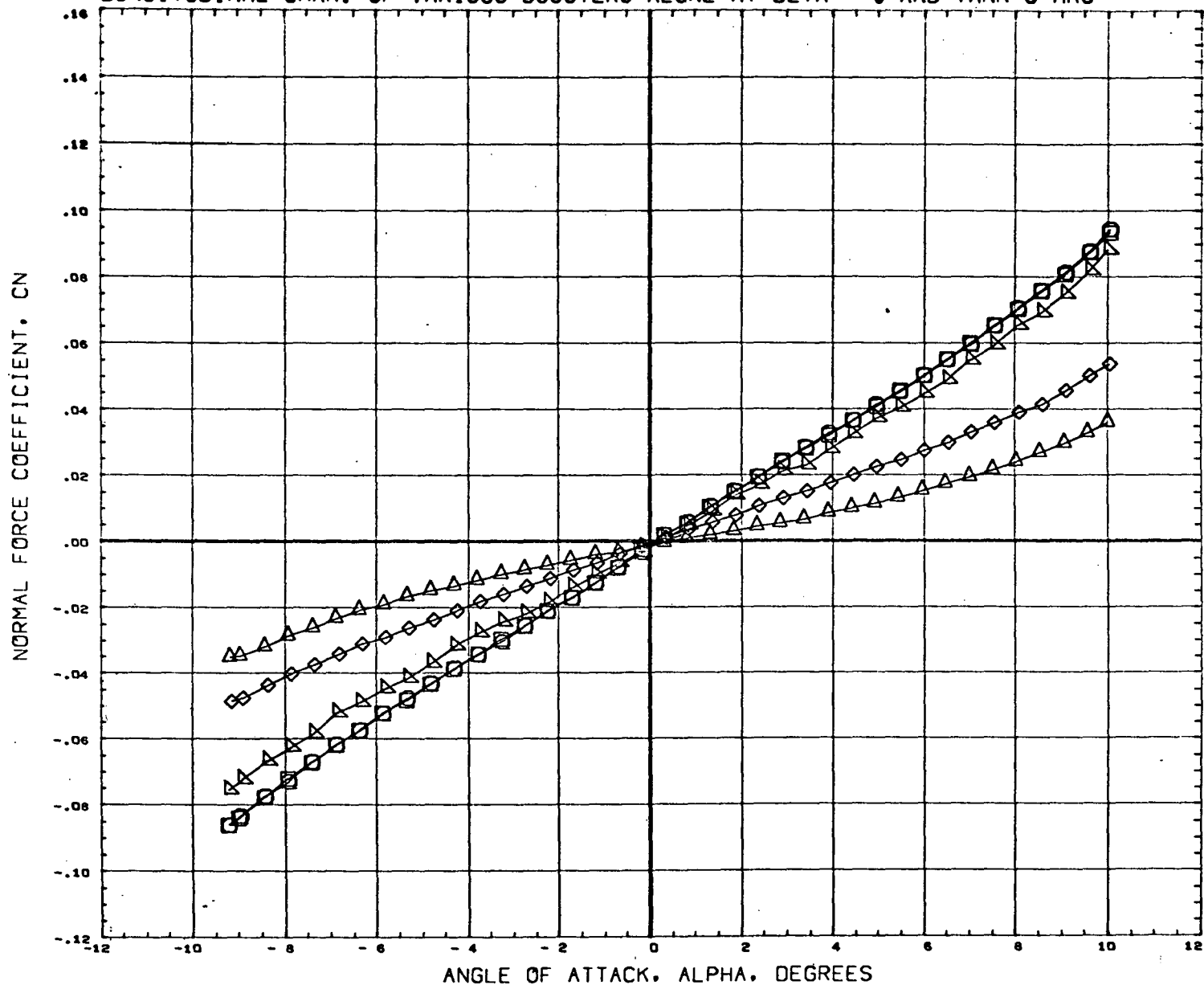
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 343

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



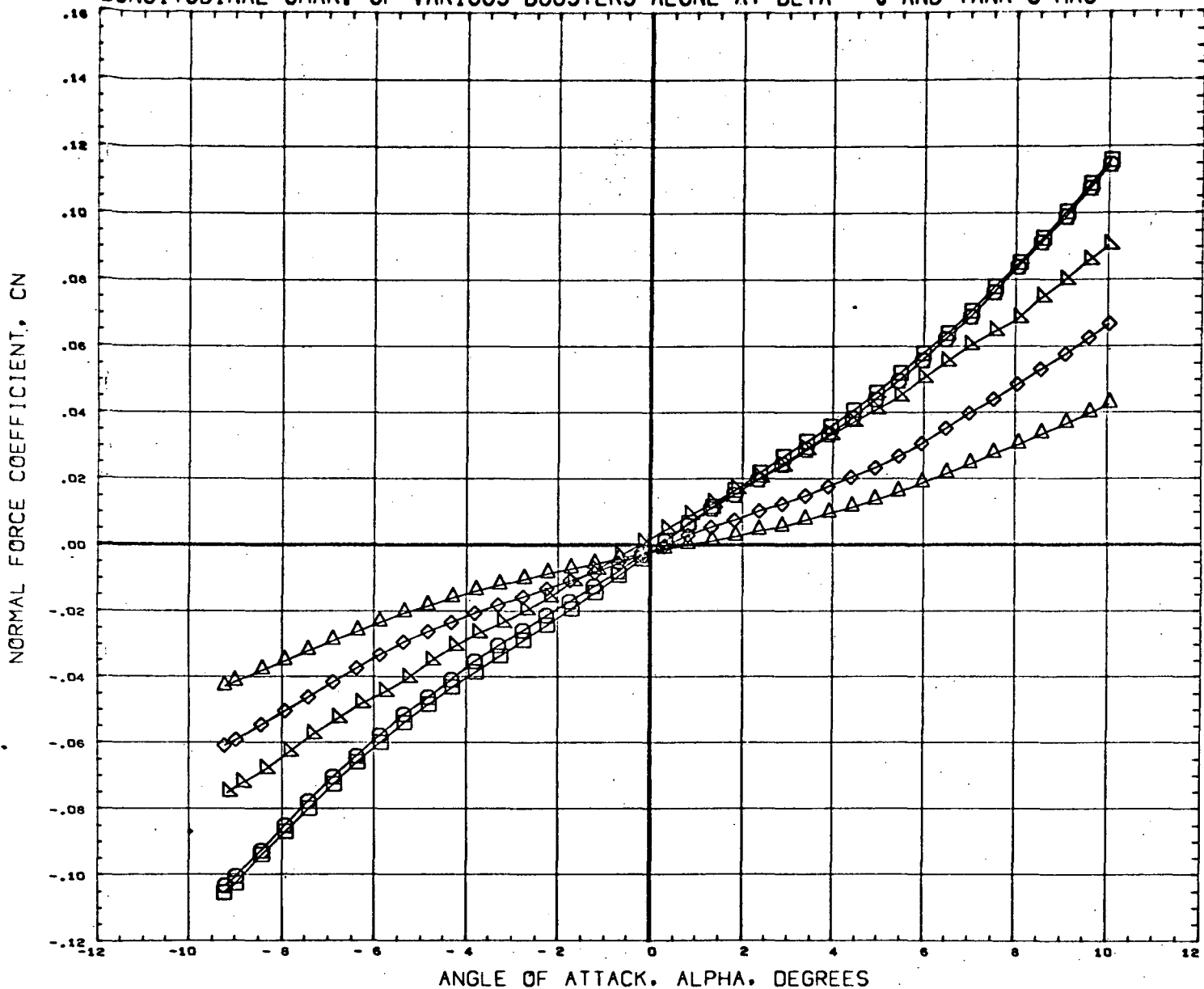
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(C078B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(C078B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(C078B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(C078B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(C078B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 344

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



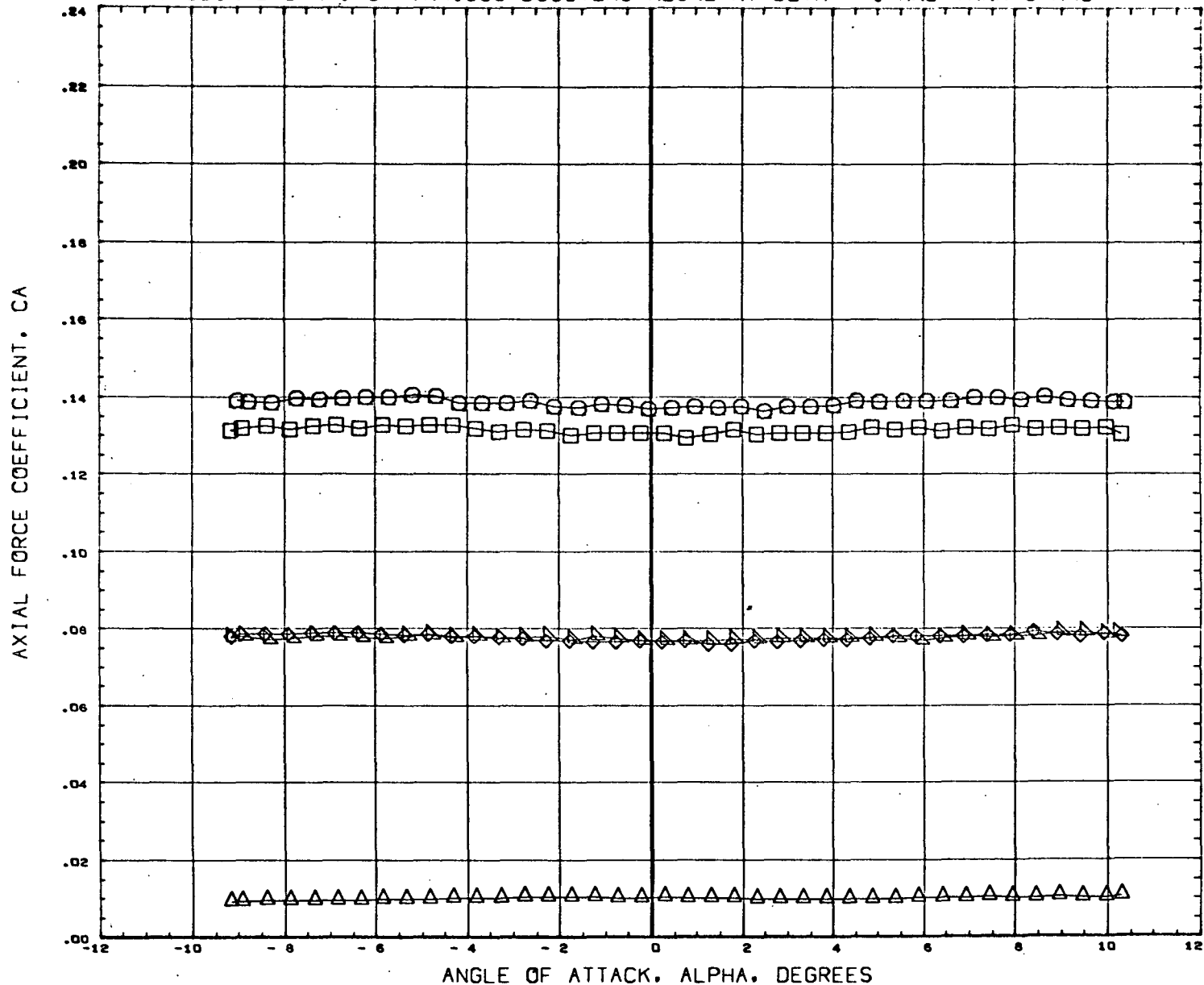
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 345

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

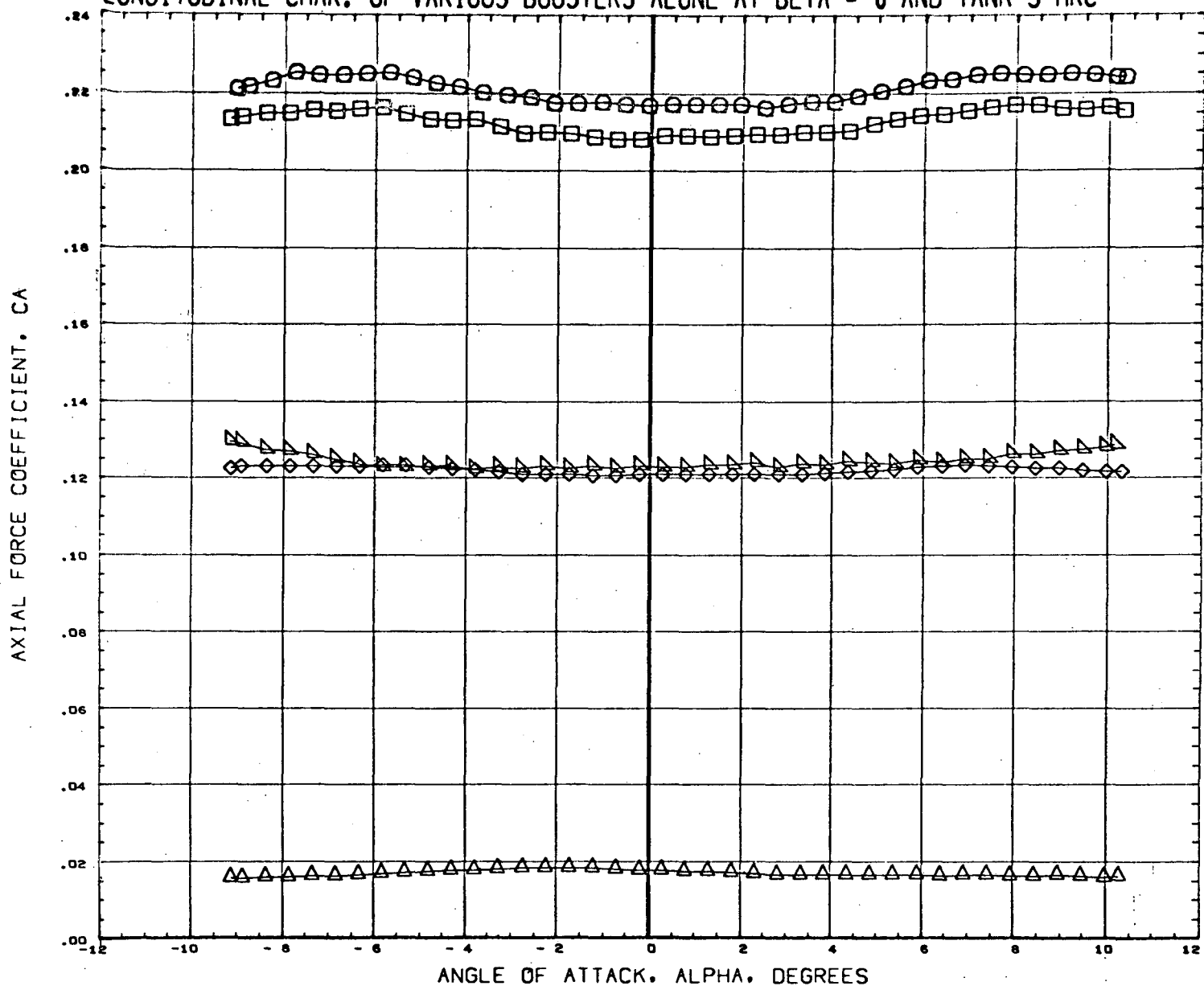
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

.89

PAGE 346

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

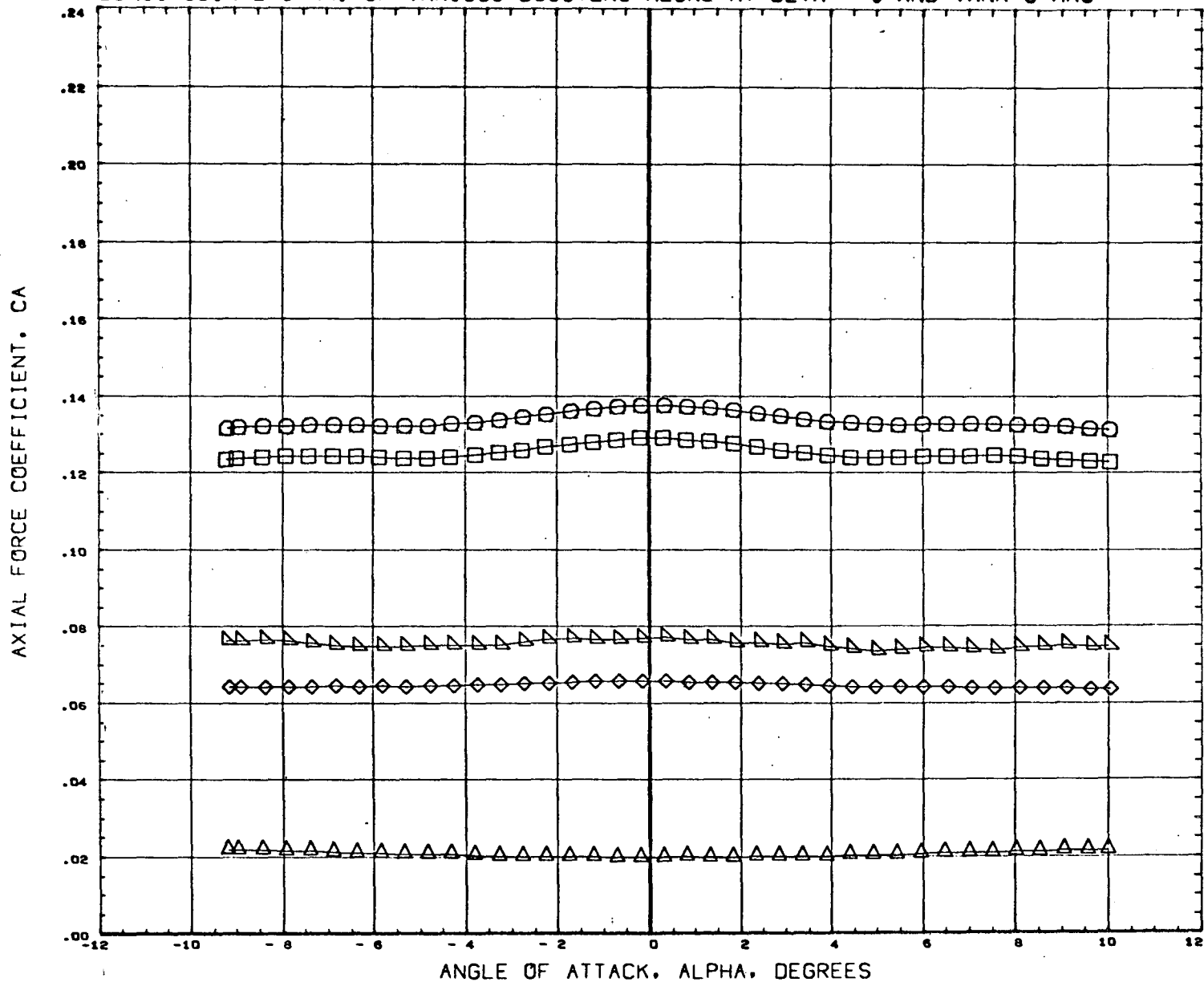


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 882.0004 IN.
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 1.08

PAGE 347

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

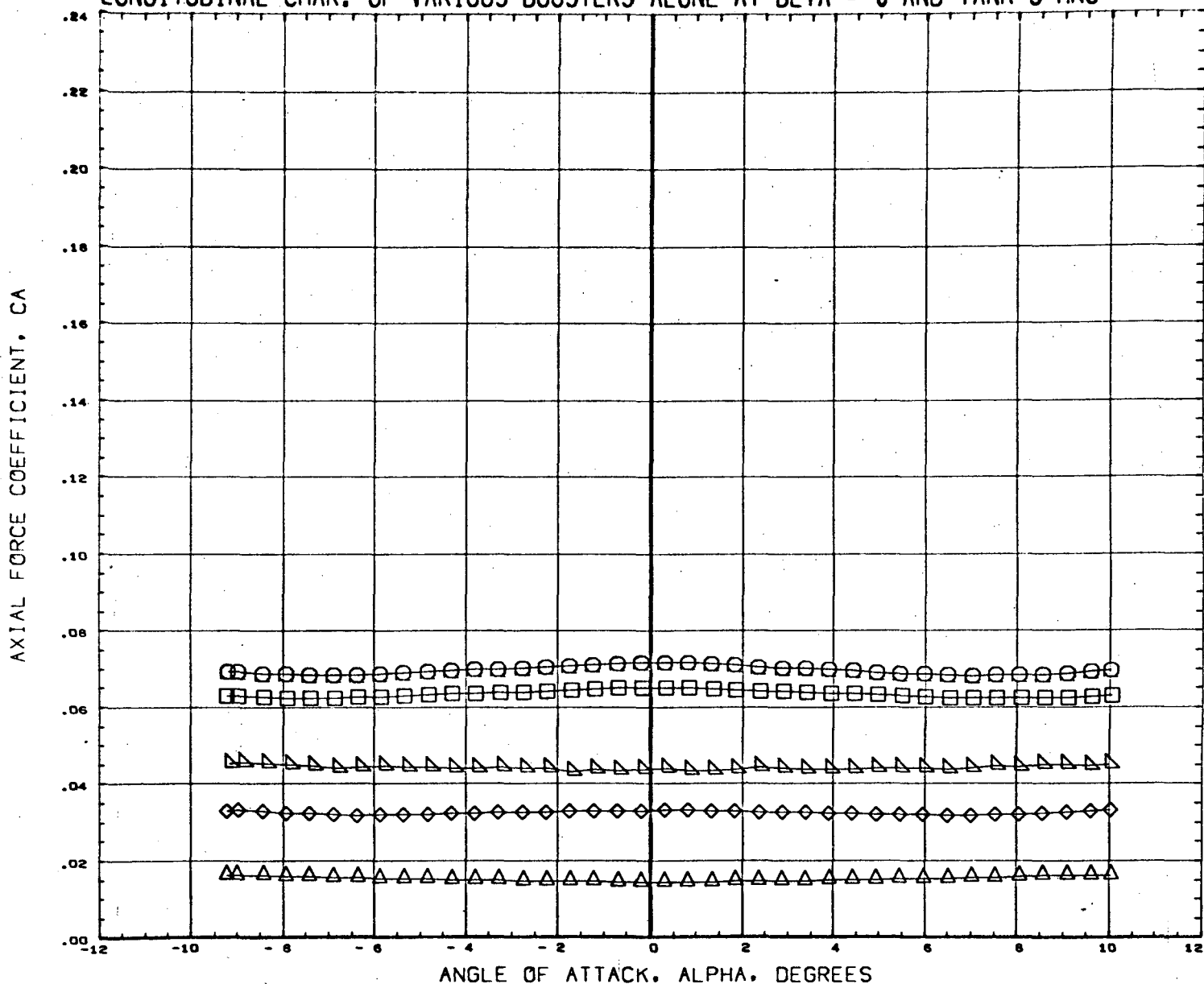
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 348

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

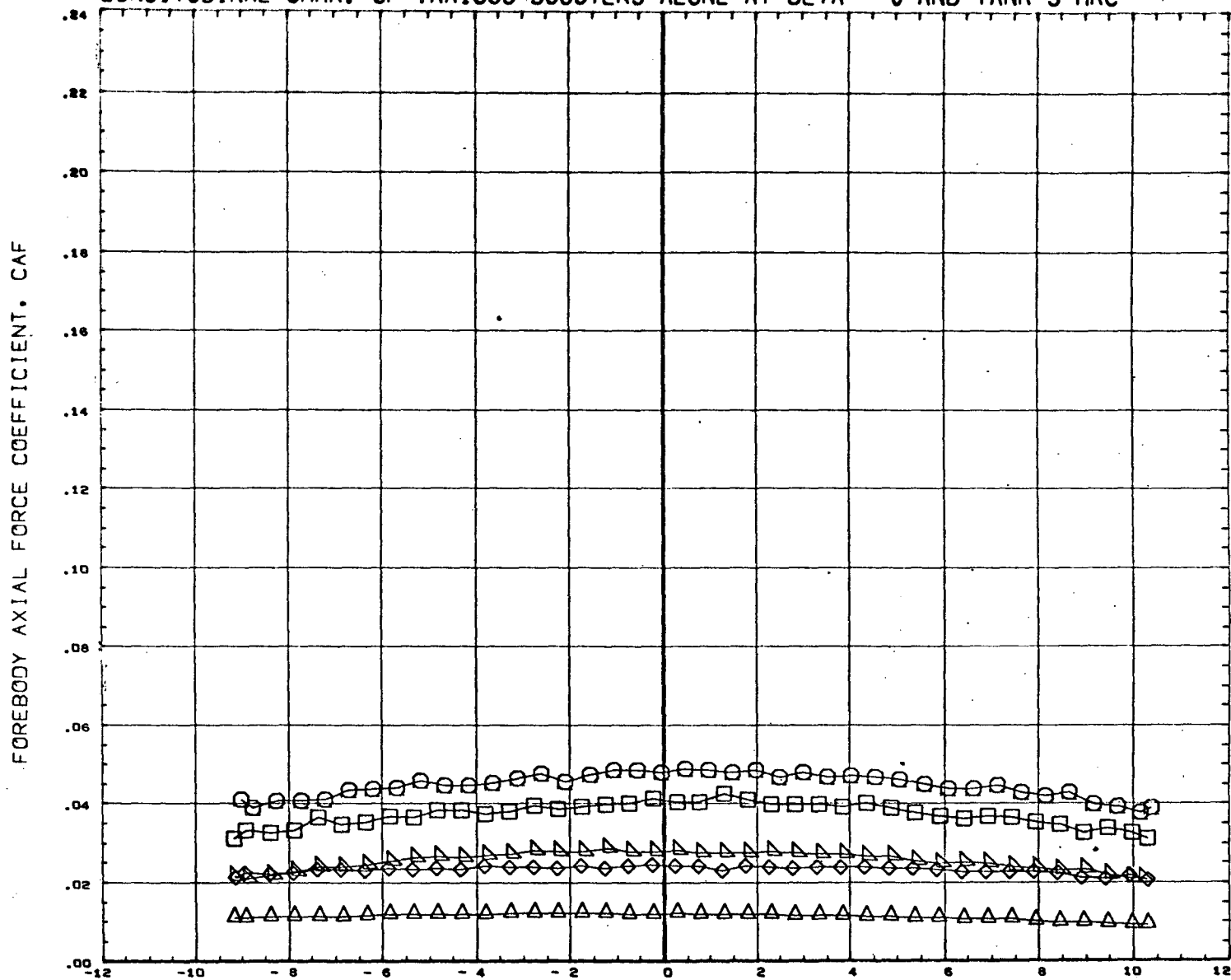
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 349

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

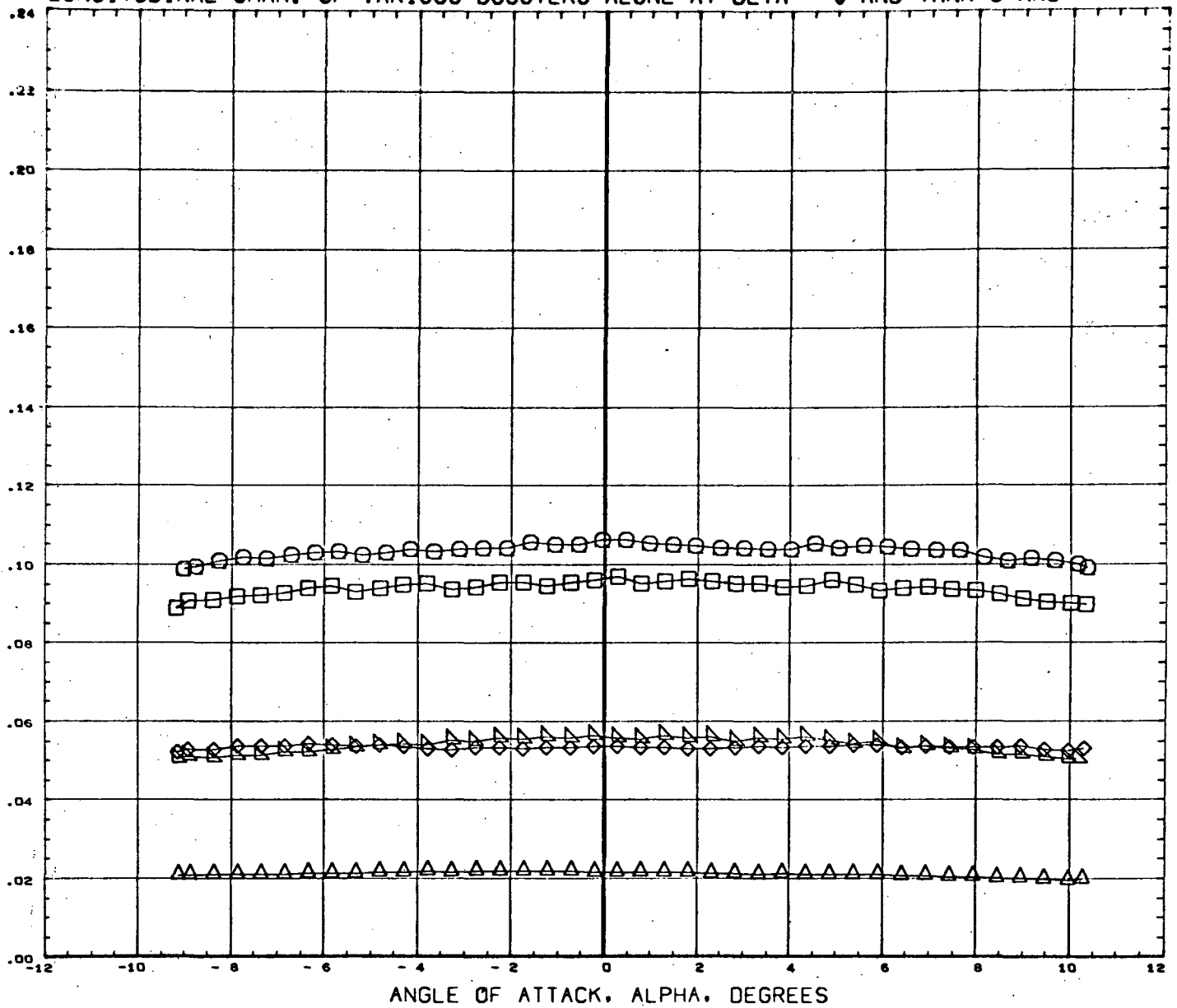


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 882.0004 IN.
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH .89

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF

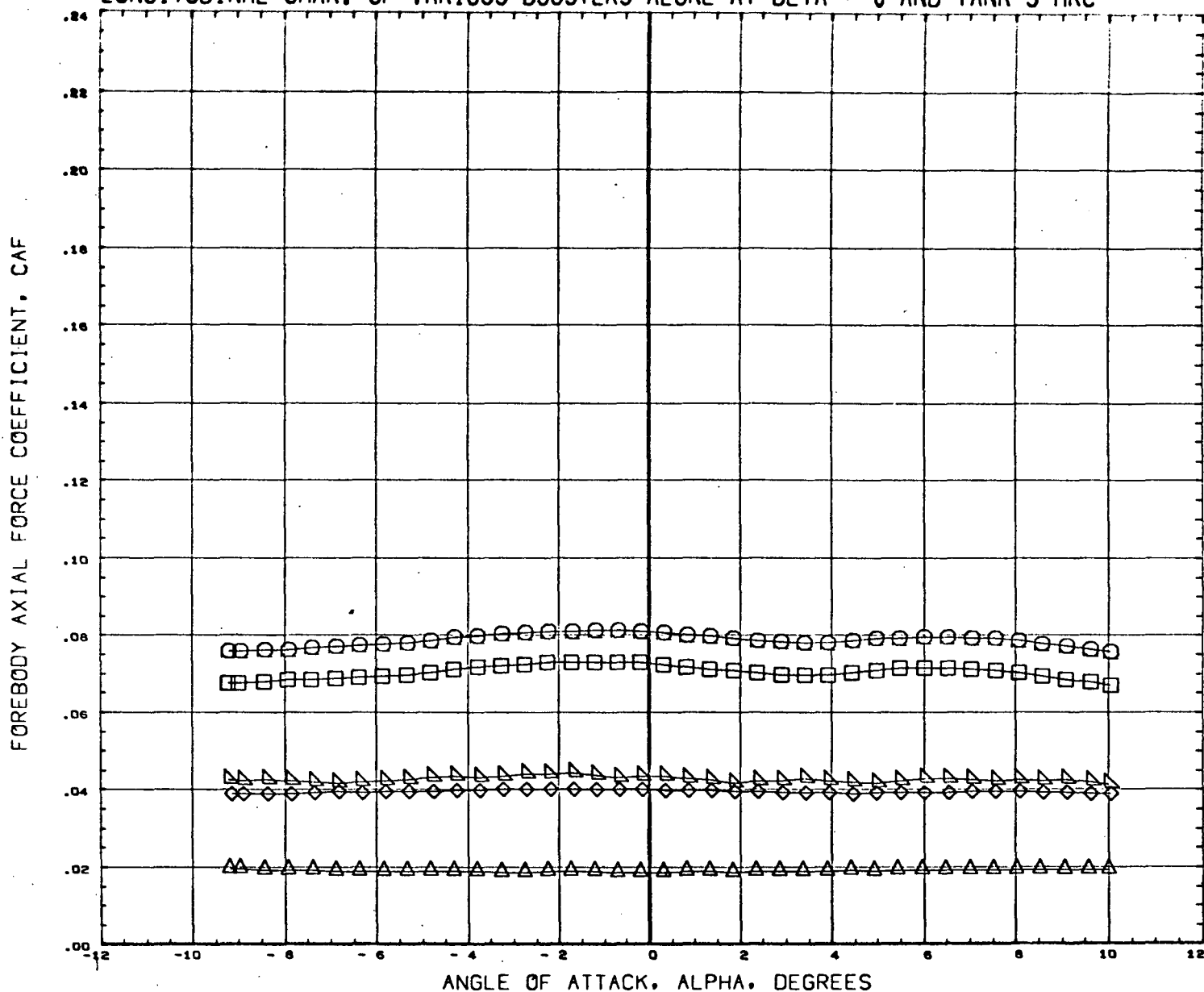


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 682.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 1.08

PAGE 351

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



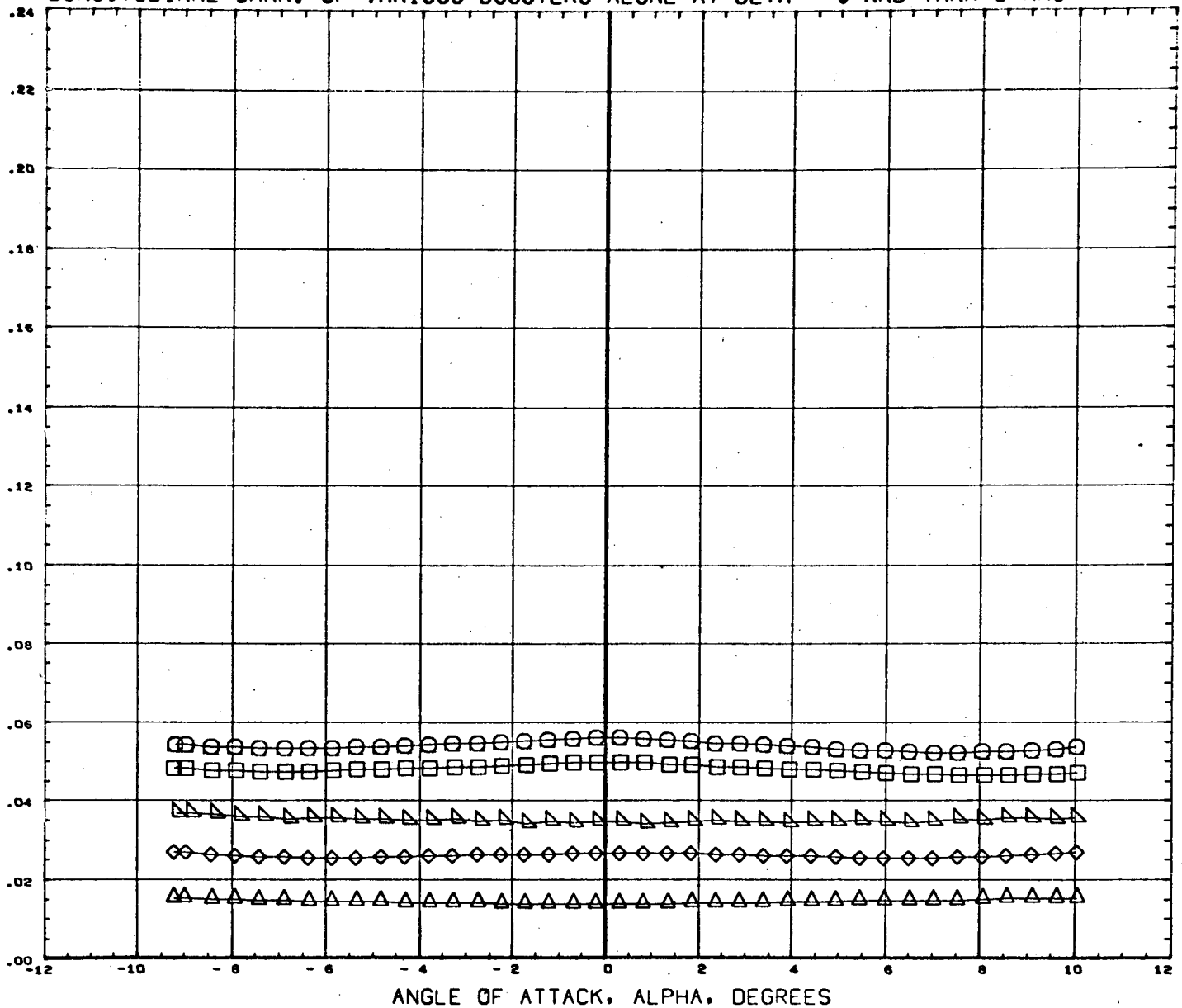
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION	
(C07881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF	3155.3040 SQ.FT.
(C07882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF	609.5004 IN.
(C07883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF	882.0004 IN.
(C07884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP	557.0004 IN.
(C07885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP	288.7004 IN.
			ZMRP	200.0004 IN.
			SCALE	0.0060

MACH 2.20

PAGE 352

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S	0.000
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000

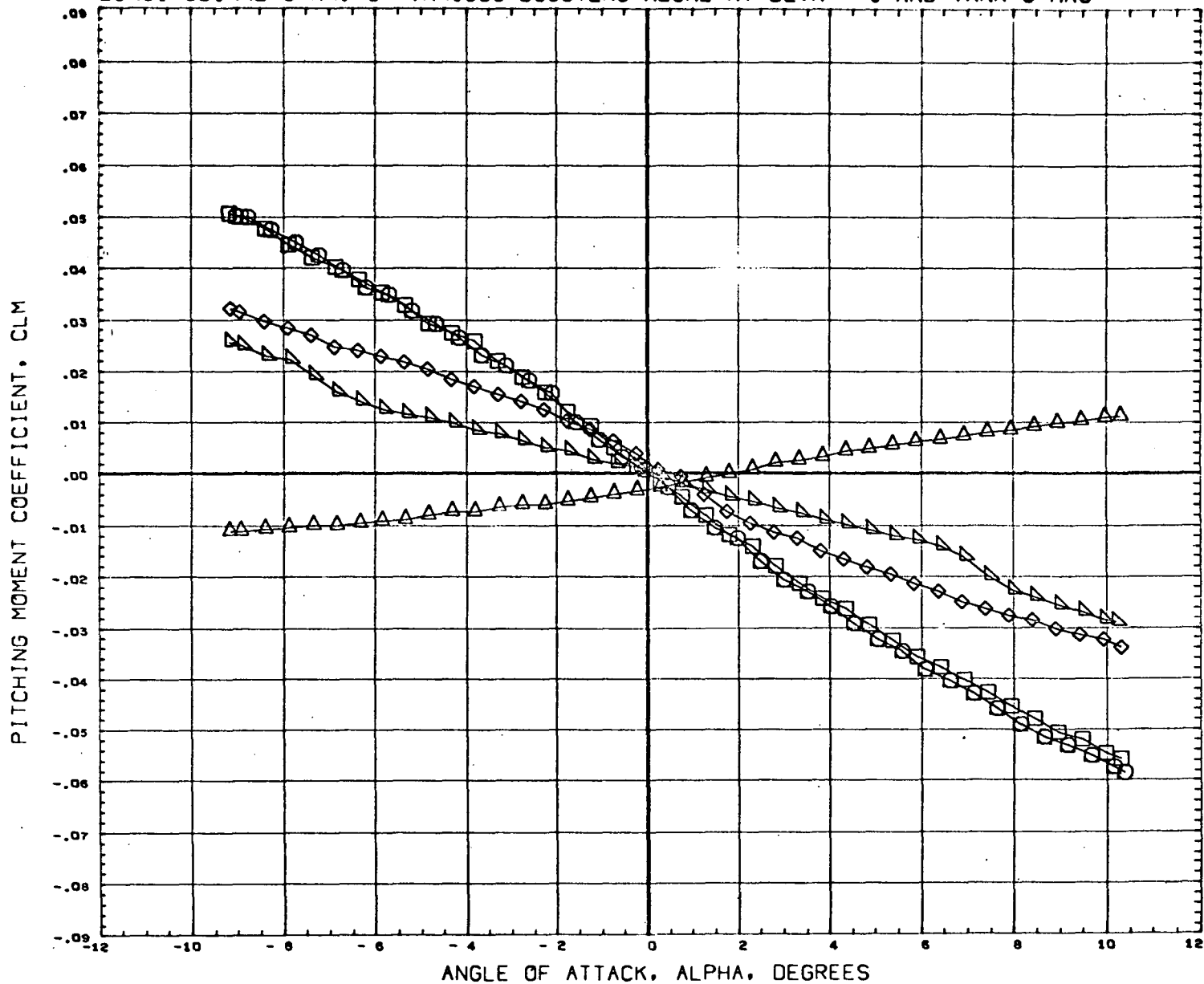
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	268.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 353

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(C07881)	MDAC S-222 BOOSTER ALONE (T3-CG)	81
(C07882)	MDAC S-222 BOOSTER ALONE (T3-CG)	82
(C07883)	MDAC S-222 BOOSTER ALONE (T3-CG)	82S
(C07884)	MDAC S-222 BOOSTER ALONE (T3-CG)	83
(C07885)	MDAC S-222 BOOSTER ALONE (T3-CG)	84

BETA
0.000
0.000
0.000
0.000
0.000

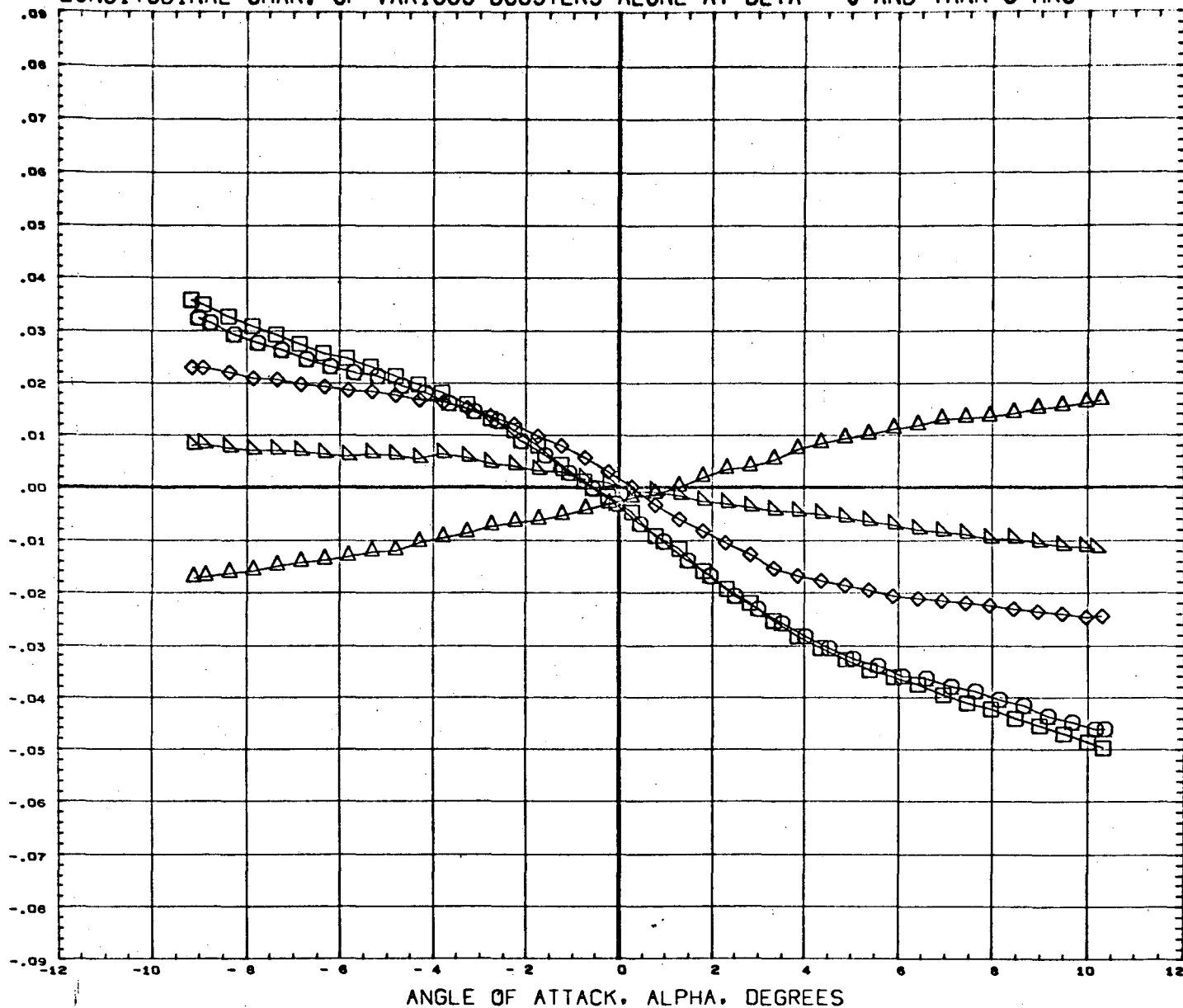
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH: .89

PAGE 354

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

PITCHING MOMENT COEFFICIENT, CLM



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

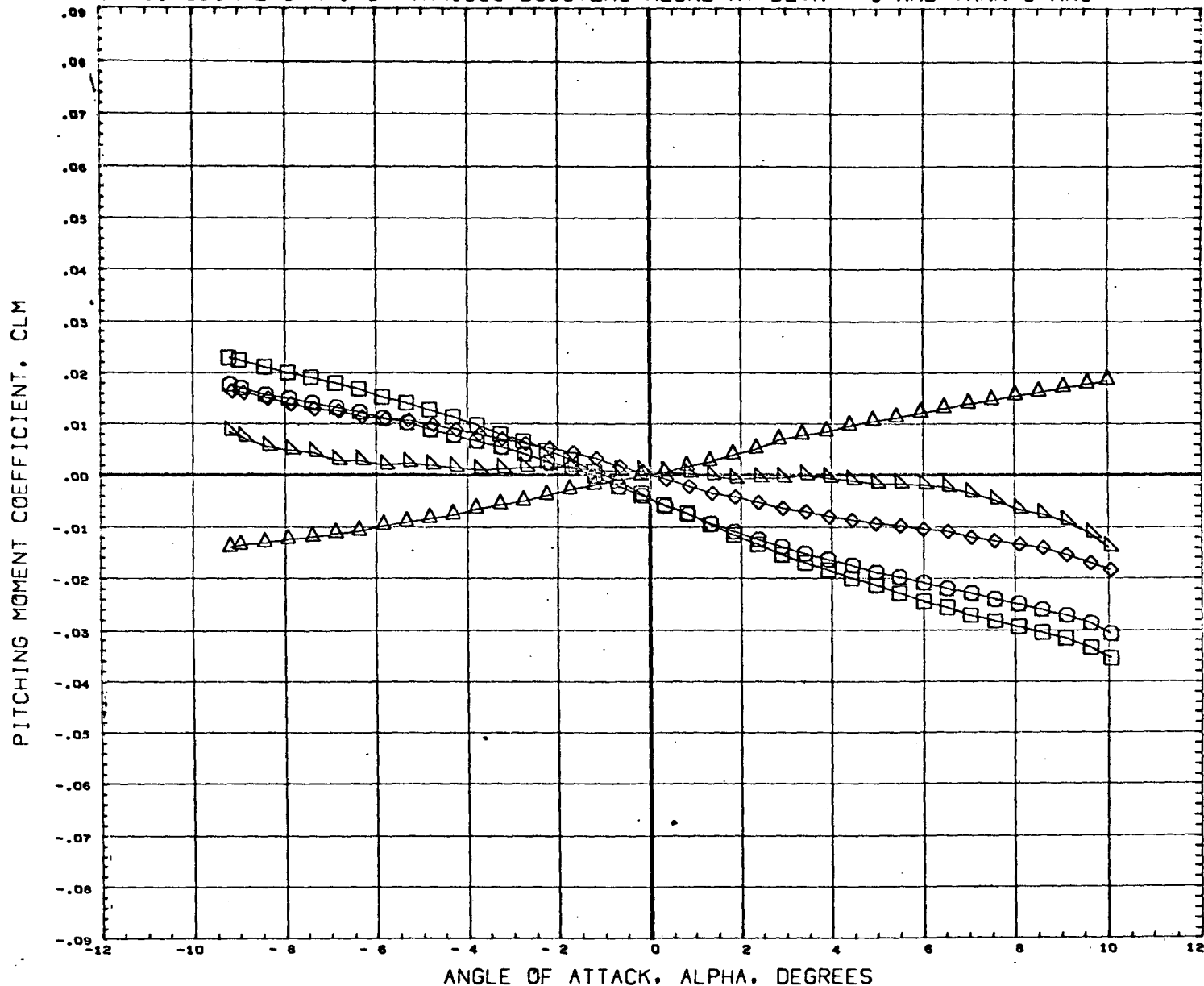
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 355

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

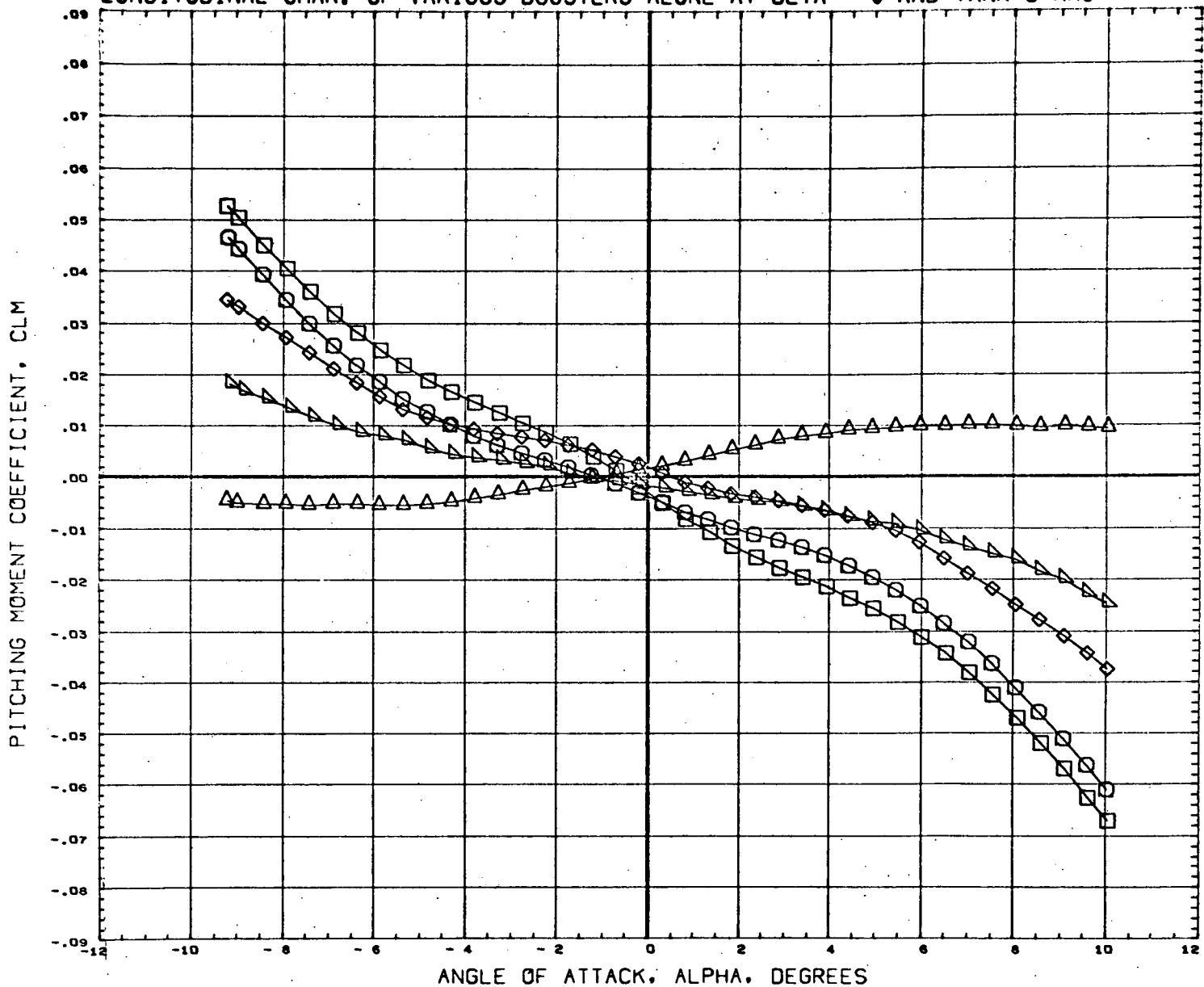


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 862.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP - 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 2.20

PAGE 356

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

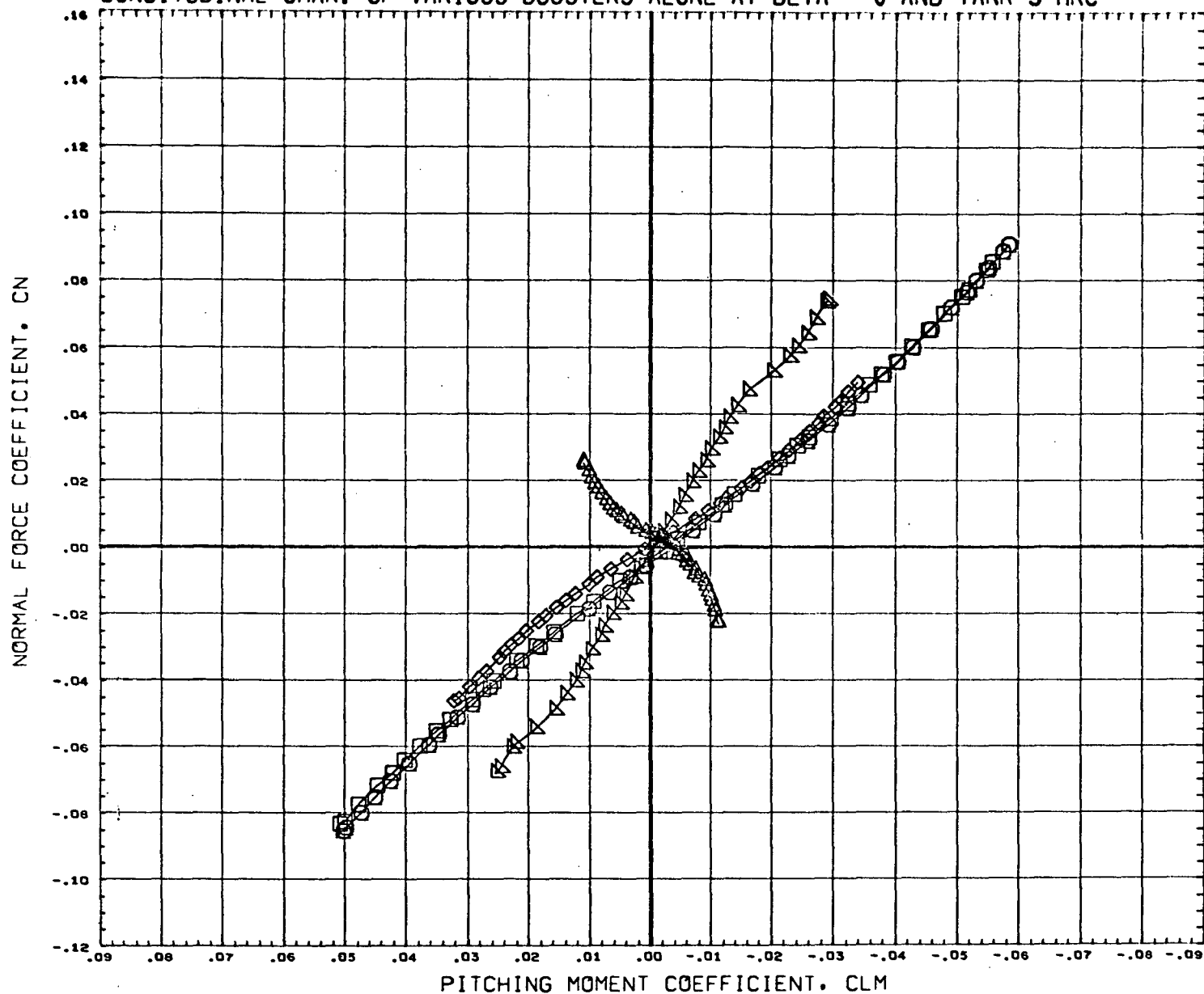


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 882.0004 IN.
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 4.47

PAGE 357

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



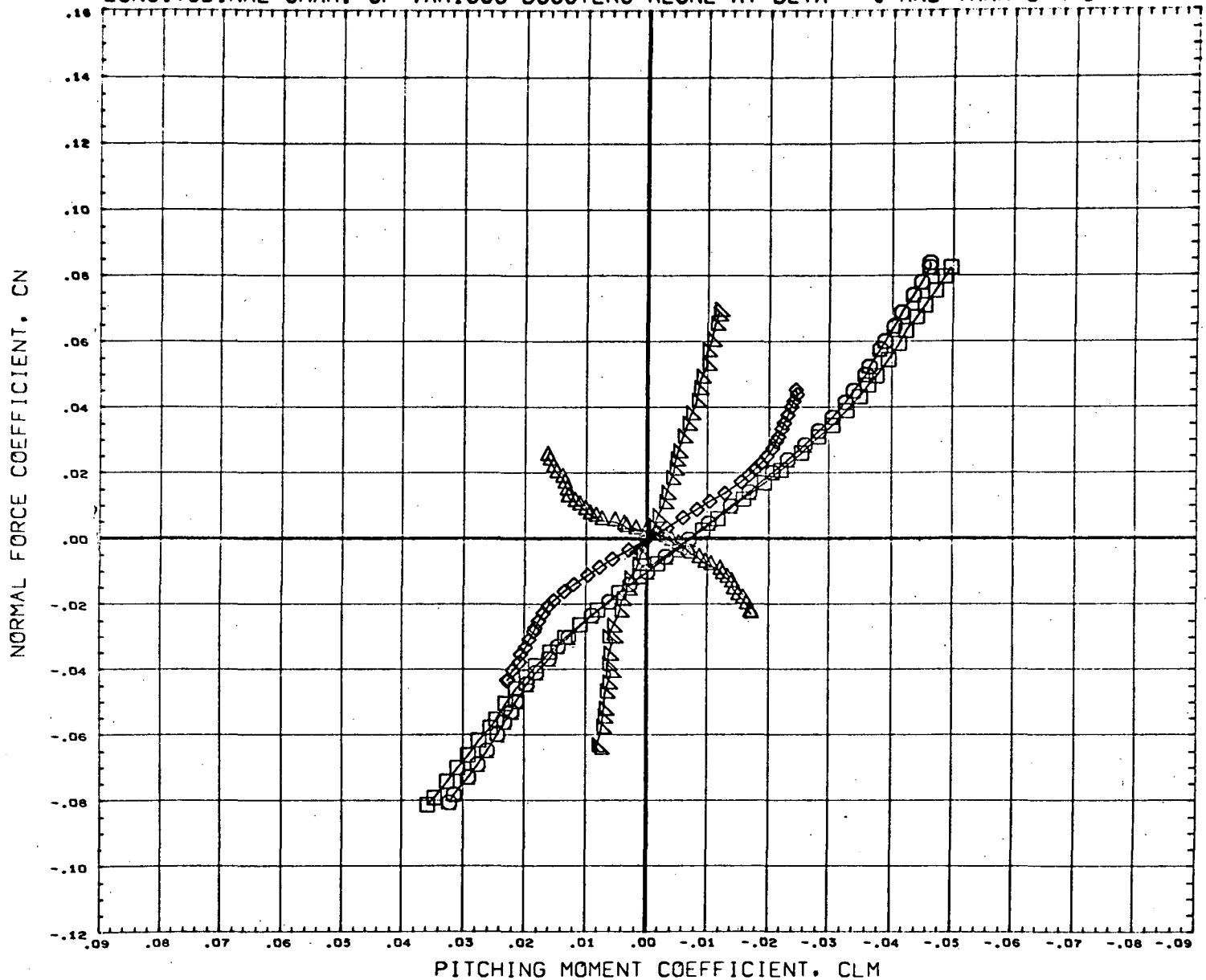
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 358

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

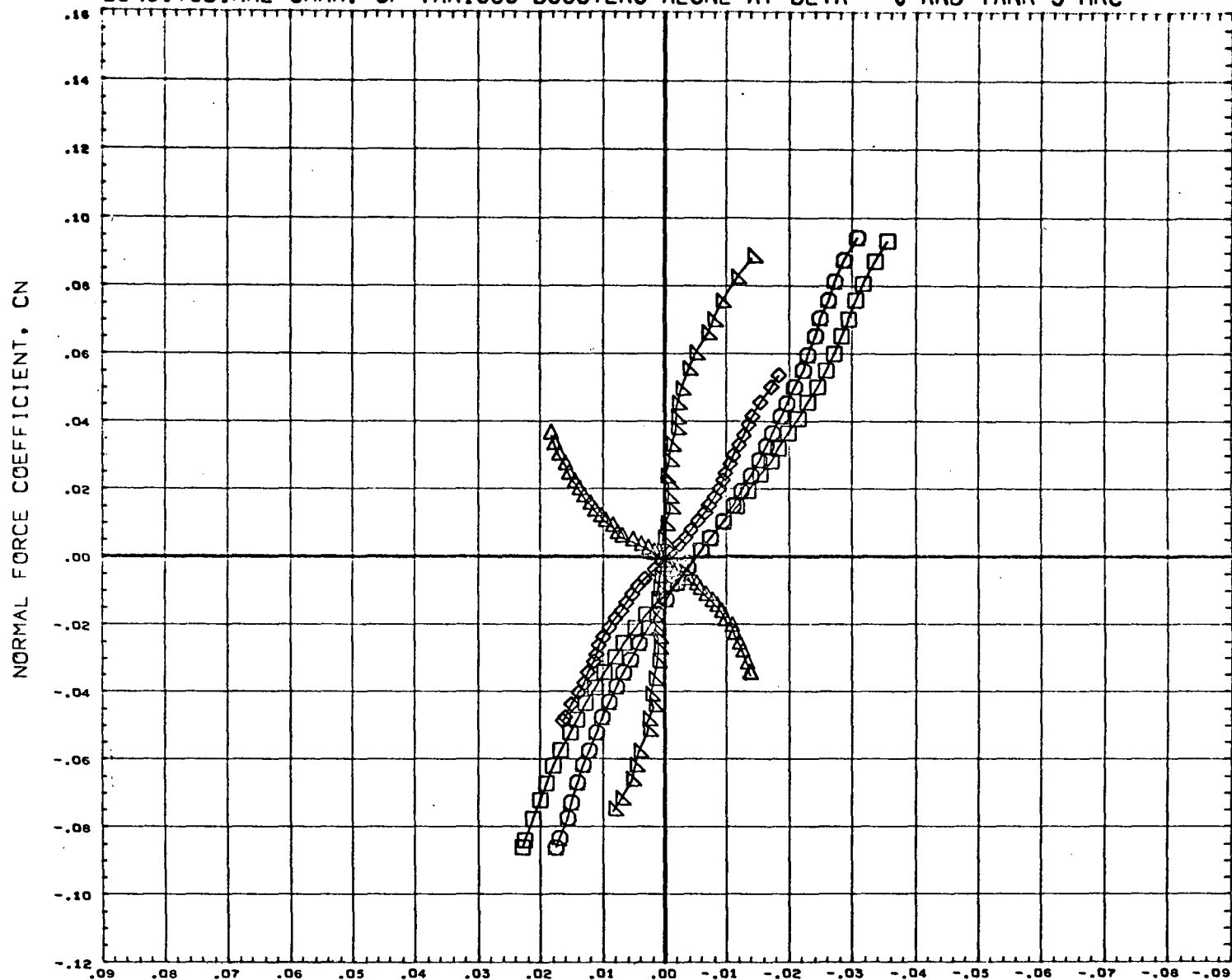


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000	SREF 3155.3040 SQ.FT.
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000	LREF 609.5004 IN.
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S	0.000	BREF 882.0004 IN.
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000	XMRP 557.0004 IN.
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 1.08

PAGE 359

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(C078B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(C078B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(C078B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(C078B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(C078B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

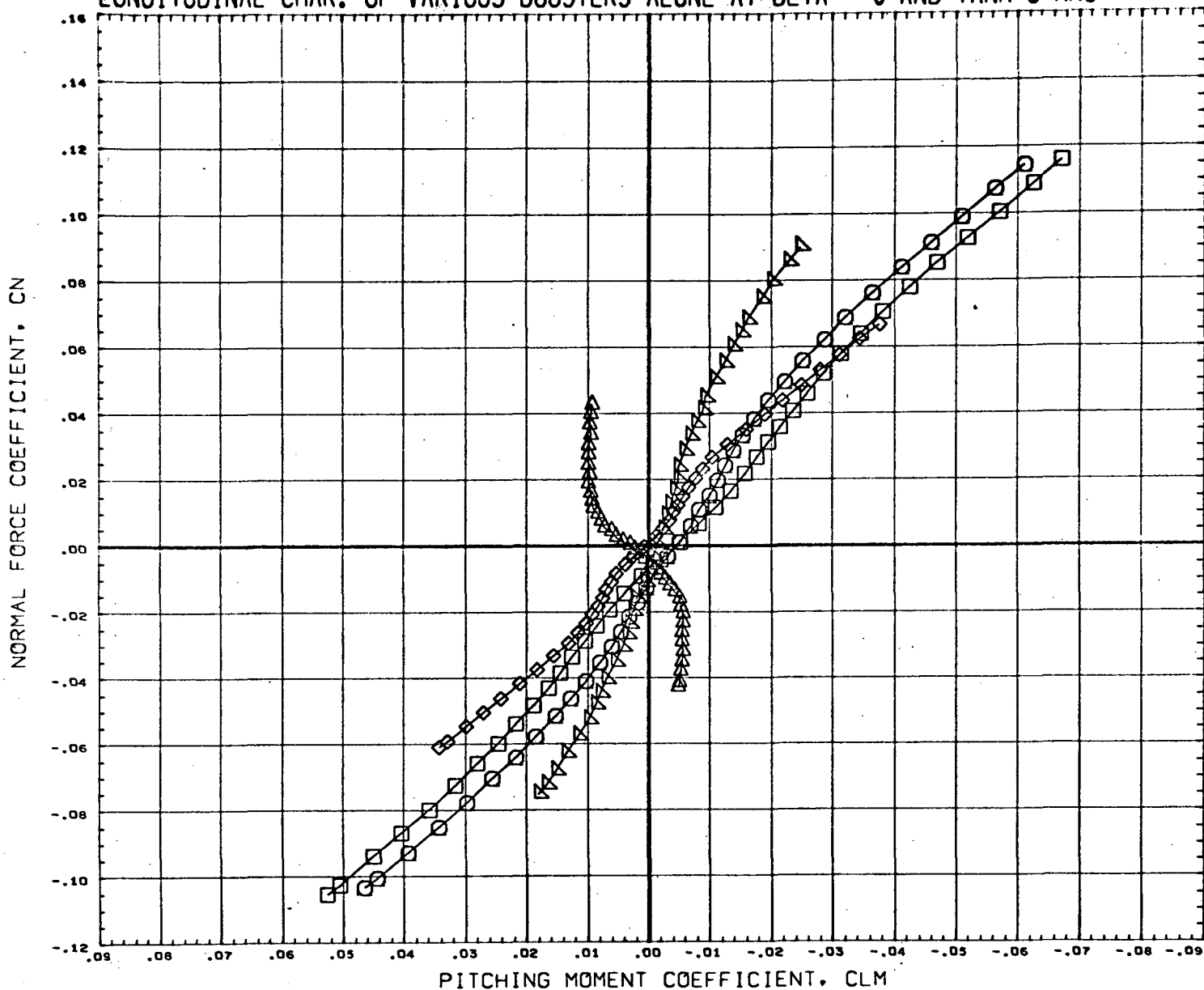
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 360

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



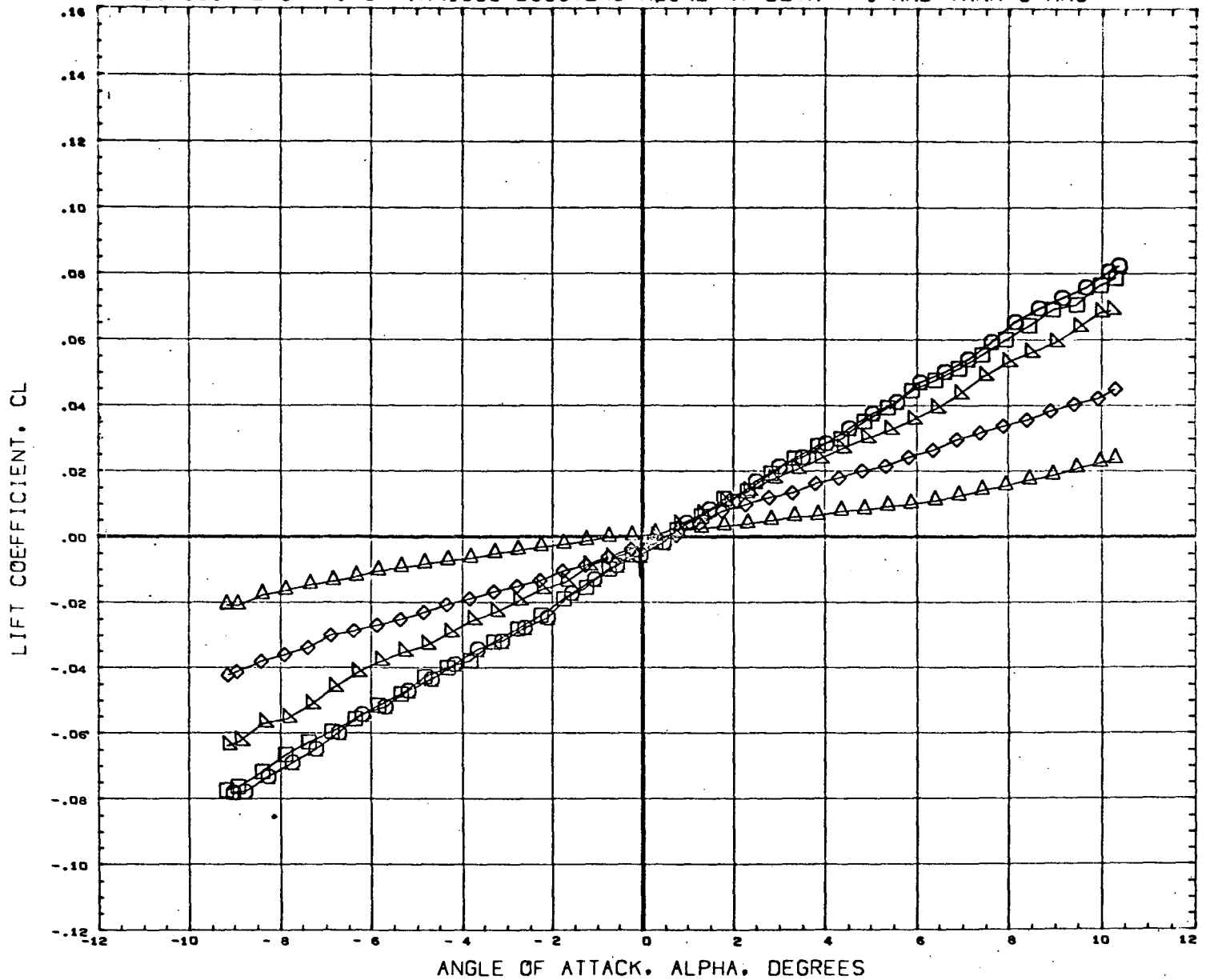
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	286.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 361

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

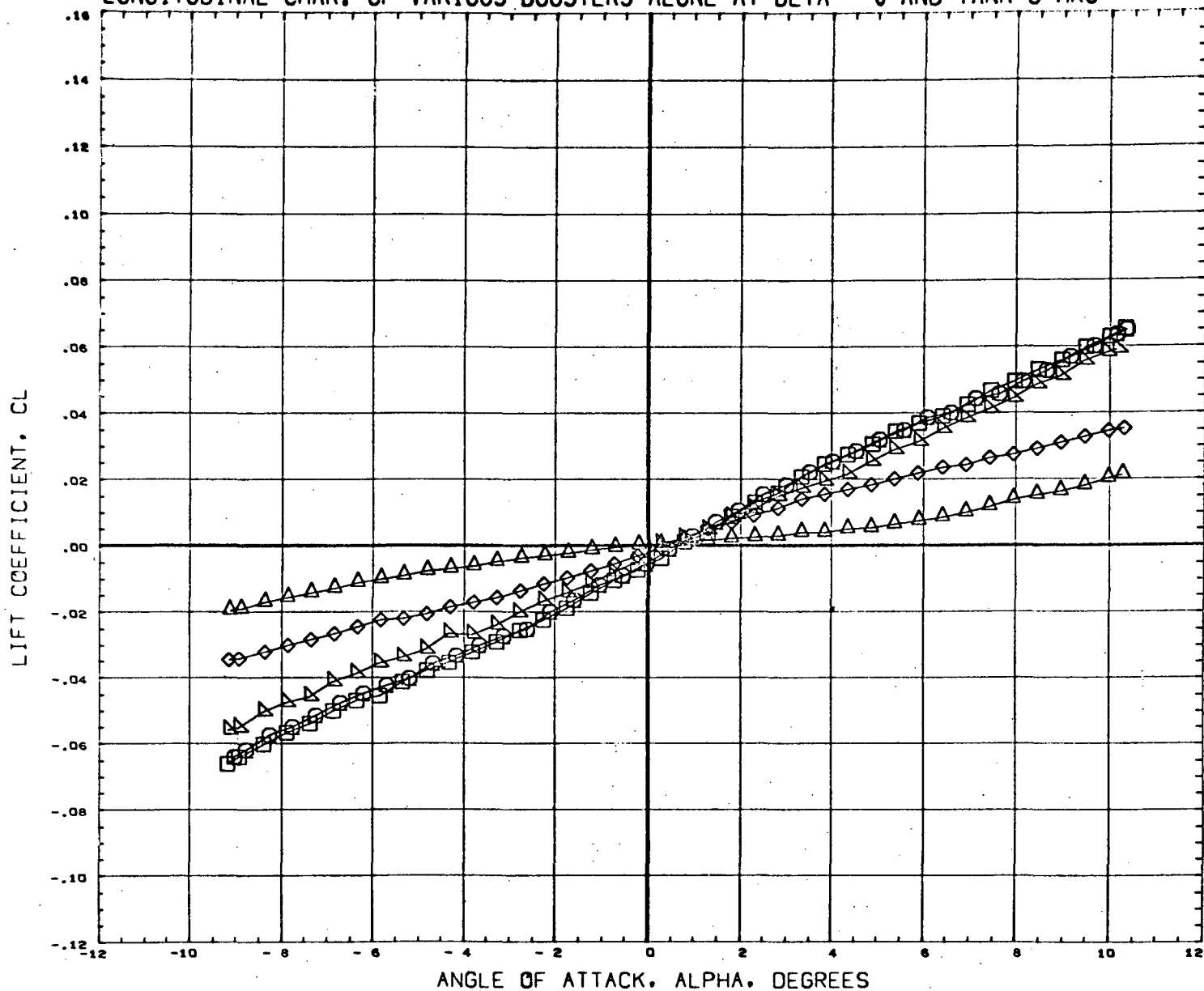
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 362

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

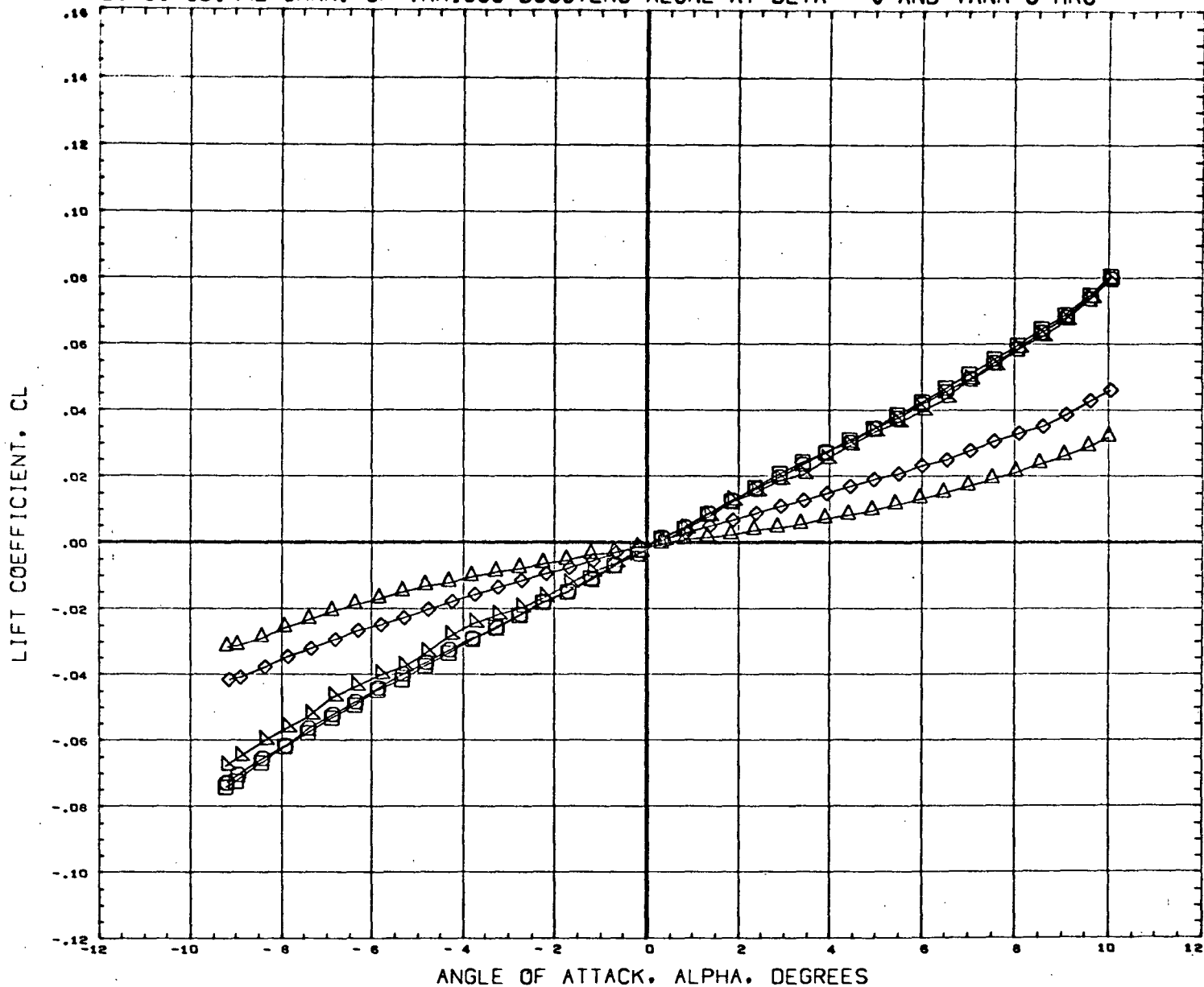


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S	0.000	BREF 882.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000	XMRP 557.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 1.08

PAGE 363

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(C07882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(C07883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(C07884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(C07885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

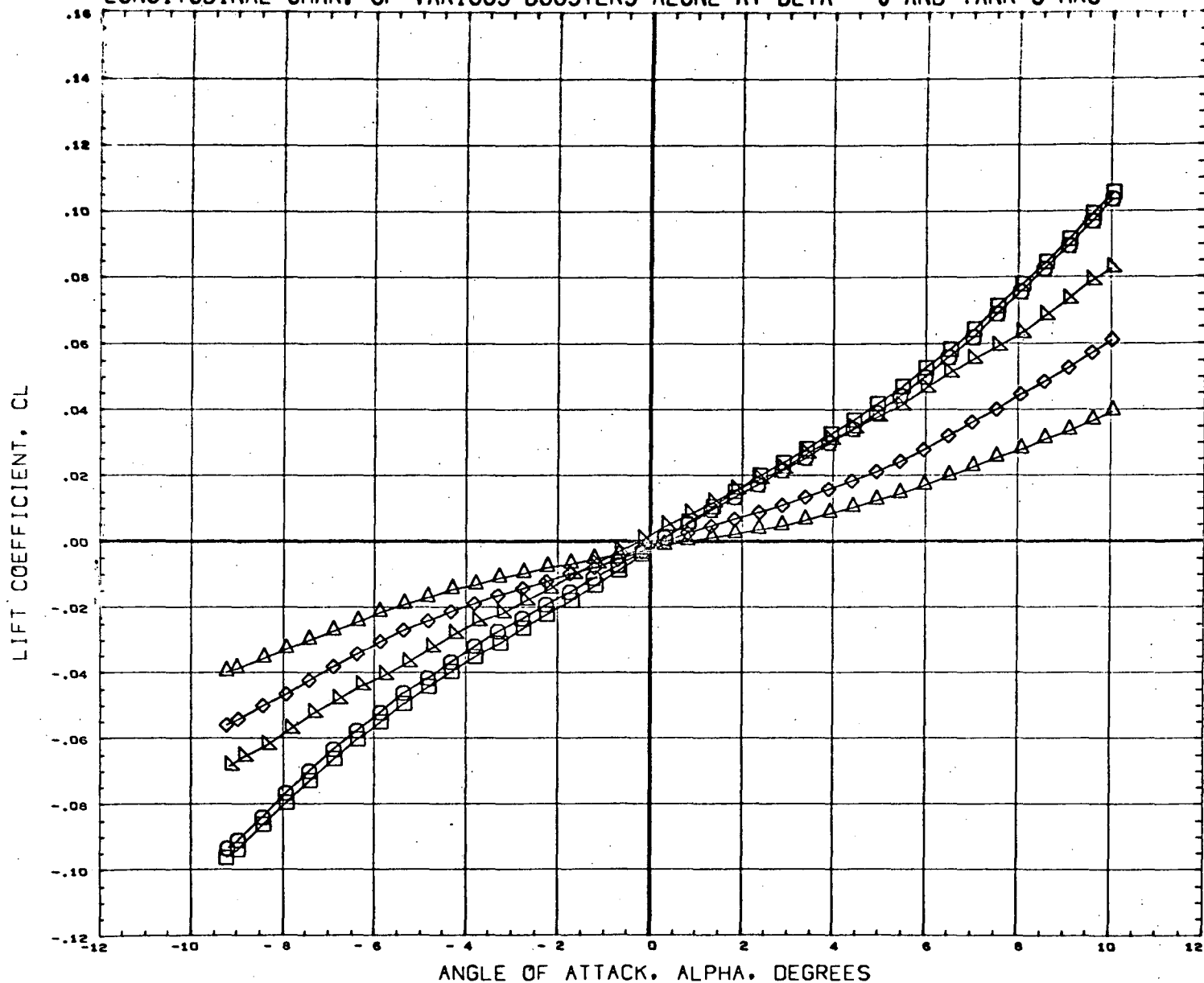
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 364

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG)	81
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG)	82
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG)	82S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG)	83
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG)	84

BETA
0.000
0.000
0.000
0.000
0.000

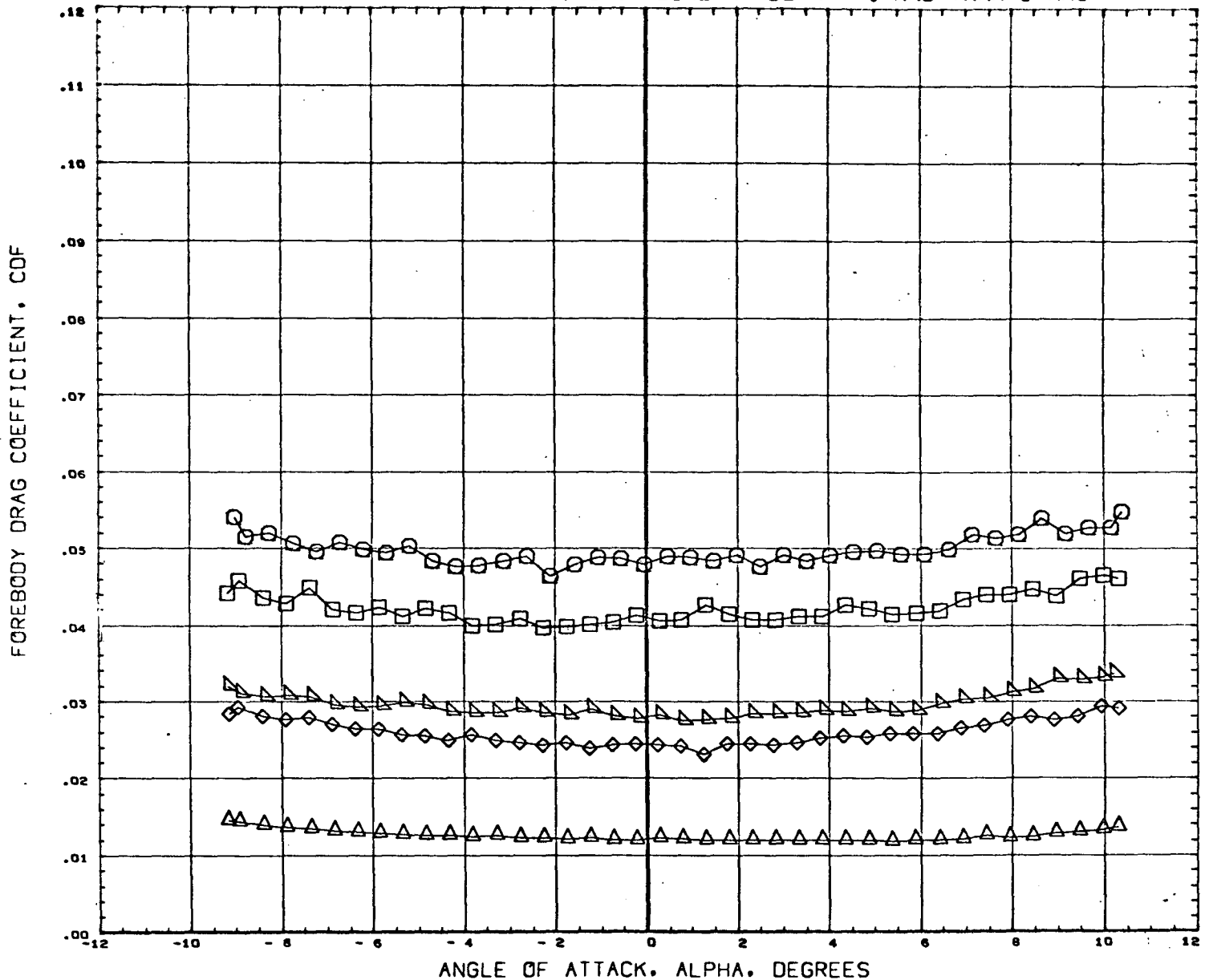
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH

4.47

PAGE 365

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

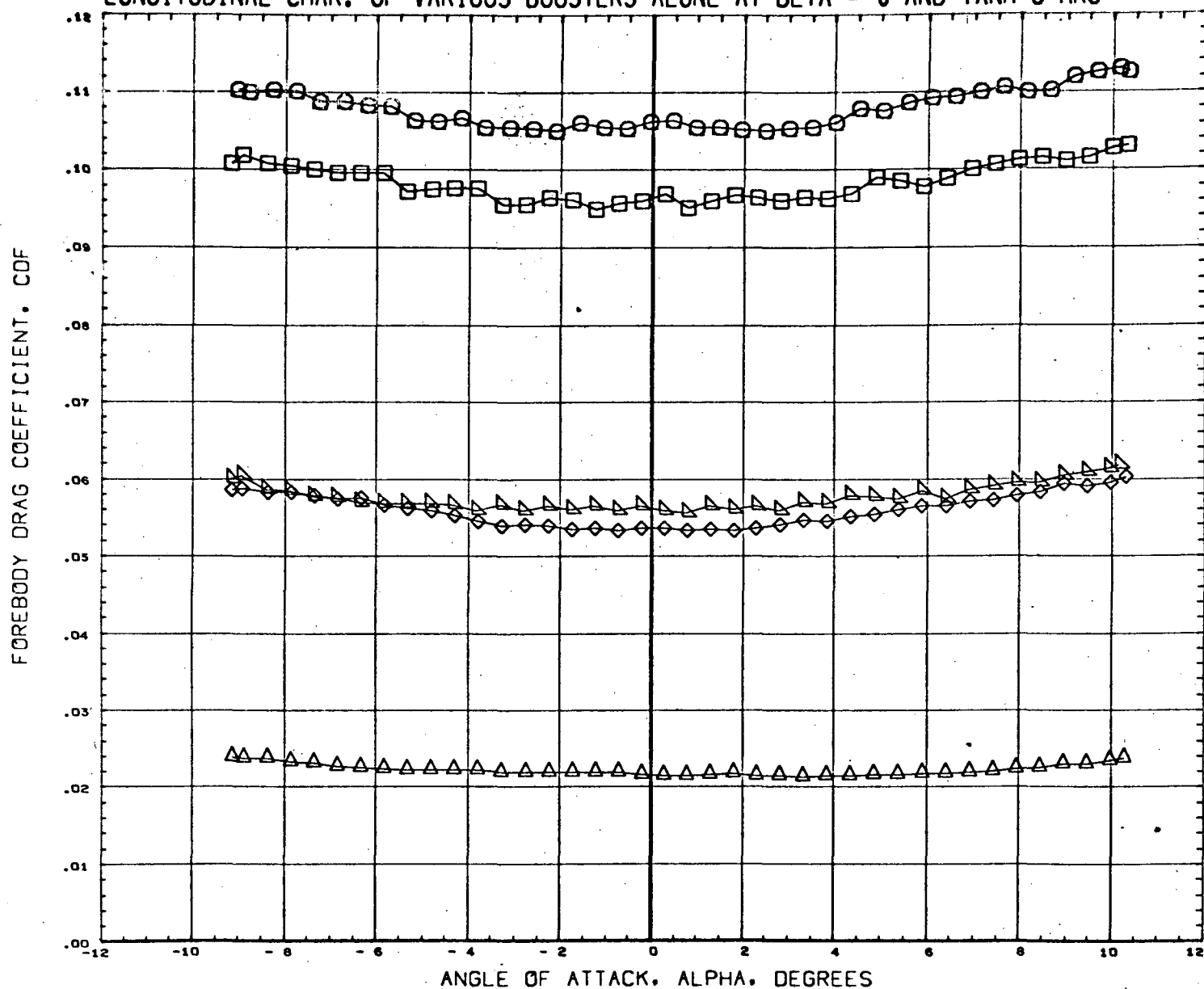


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 882.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH .89

PAGE 366

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

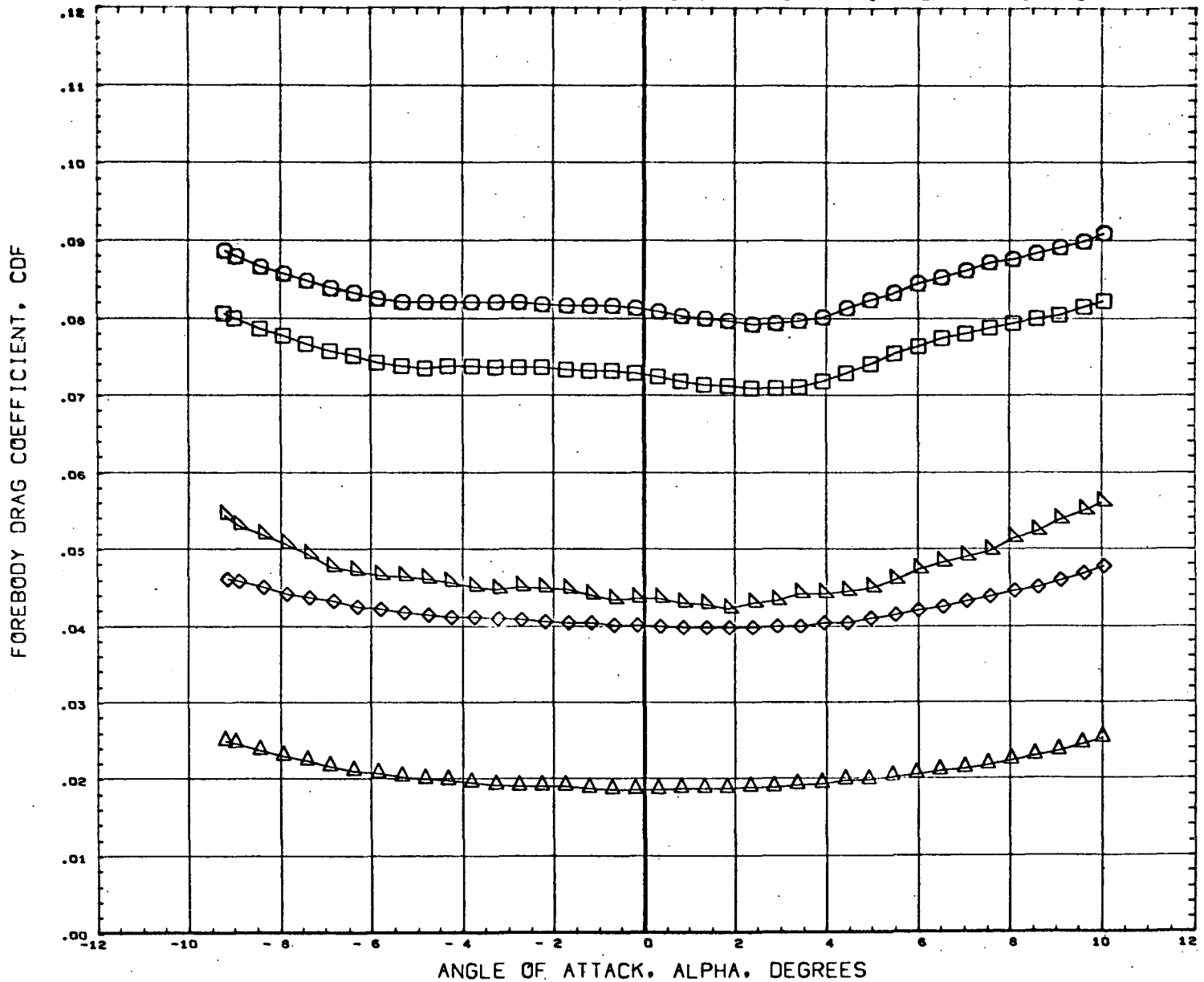
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 367

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

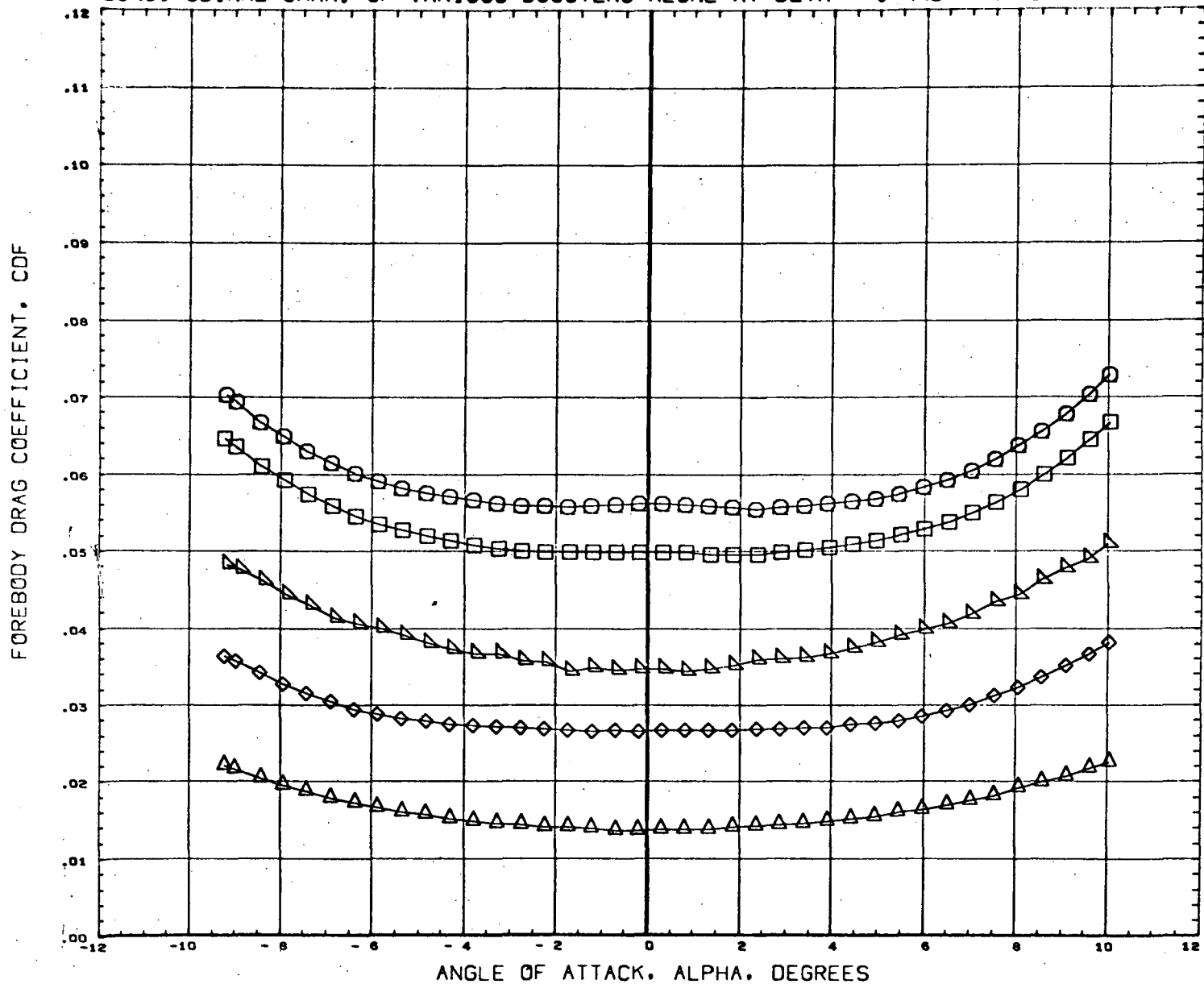
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0260	

MACH 2.20

PAGE 368

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

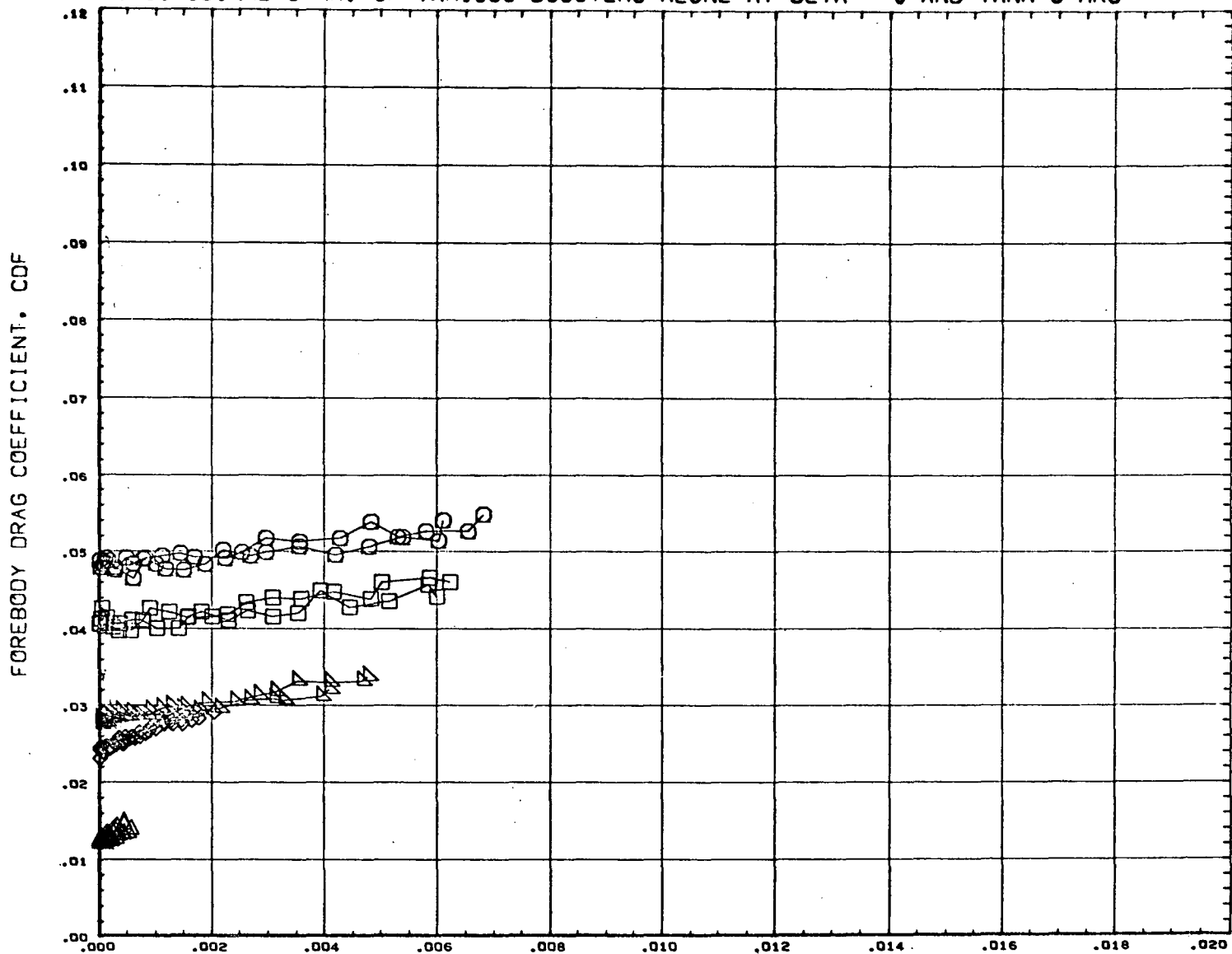


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2s	0.000	BREF 682.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 357.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 4.47

PAGE 369

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



LIFT COEFFICIENT SQUARED, CLSQ

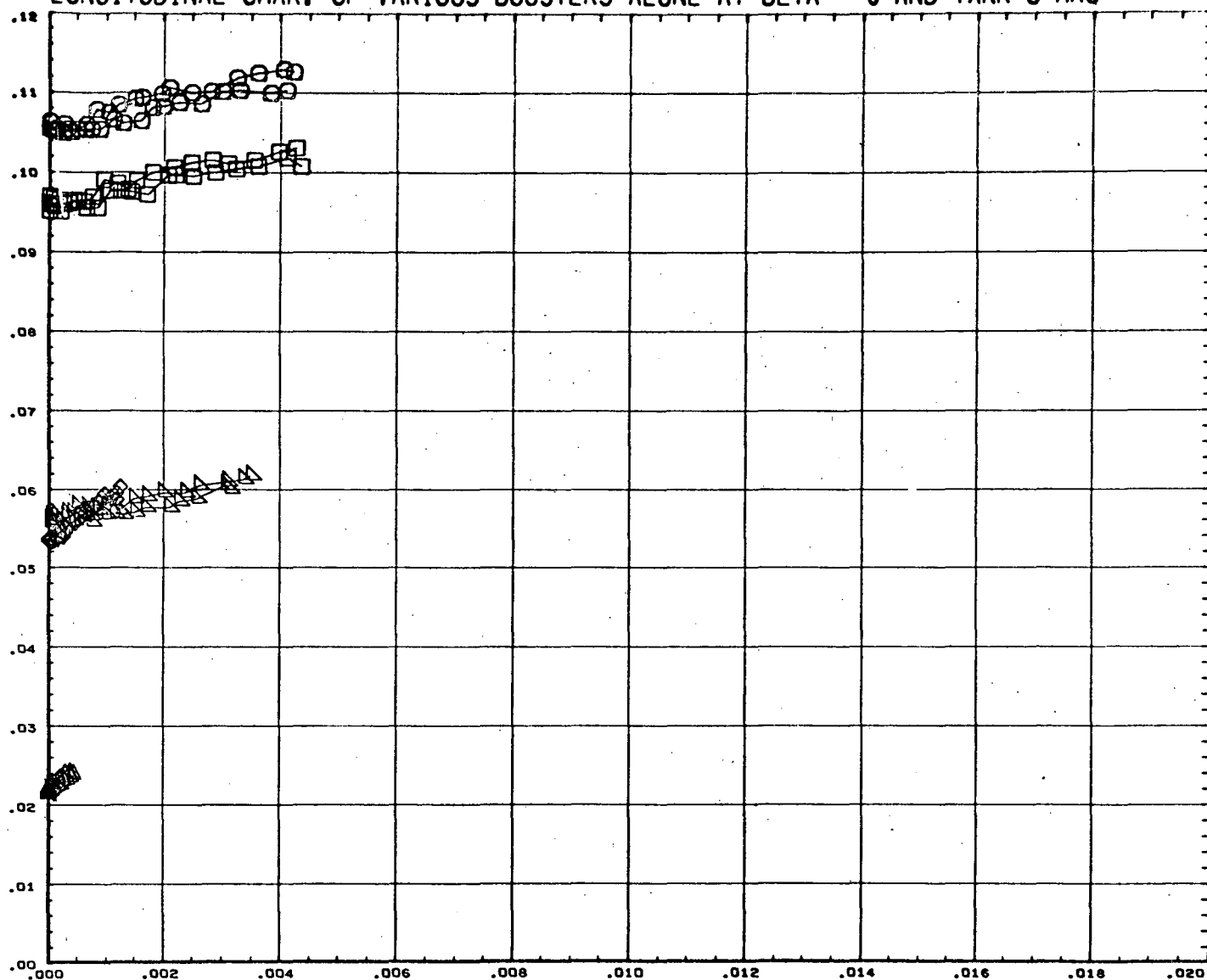
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-C6) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-C6) B2	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-C6) B2S	0.000	BREF 682.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-C6) B3	0.000	XMRP 557.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-C6) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH .89

PAGE 370

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

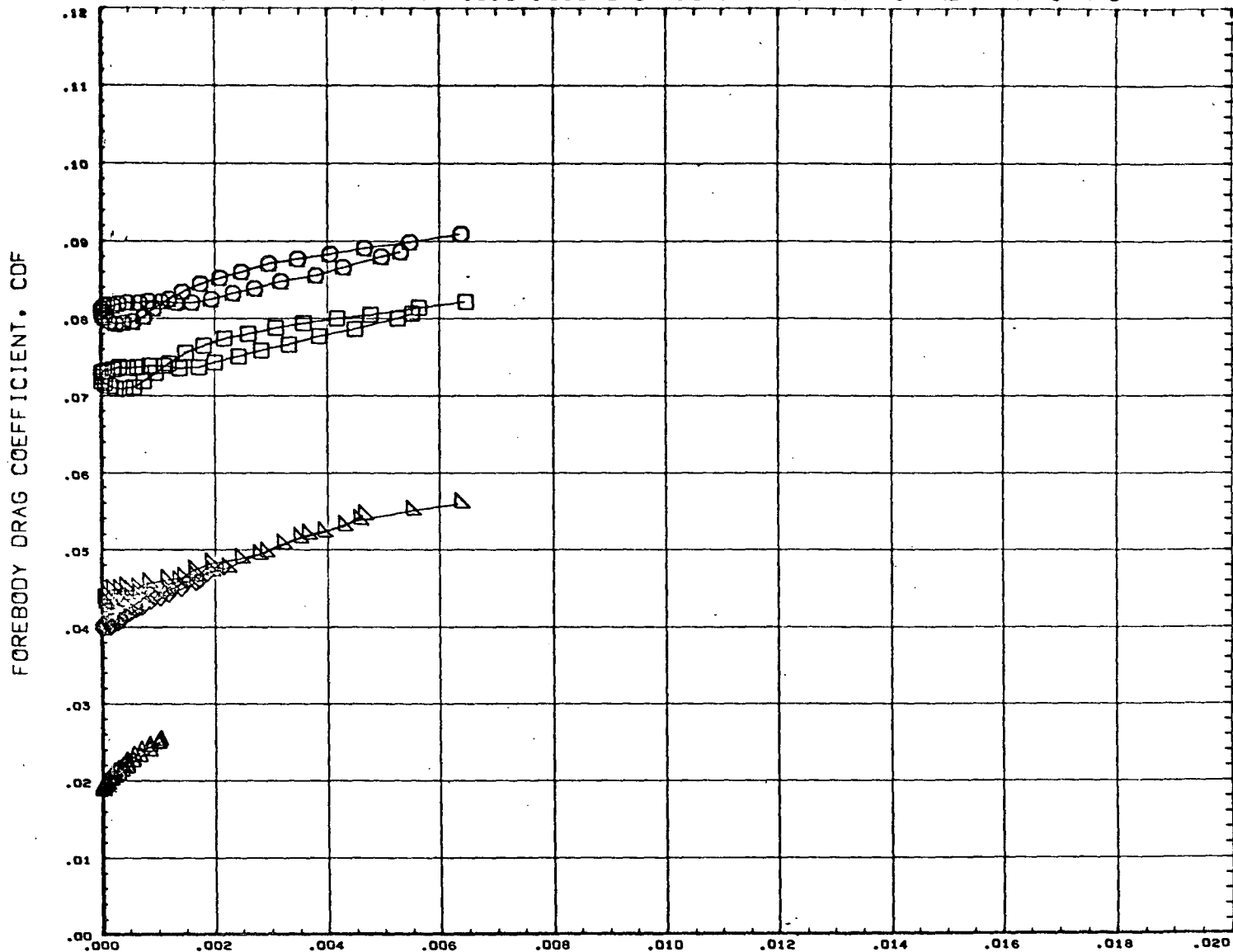
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 268.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 371

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



LIFT COEFFICIENT SQUARED, CLSQR

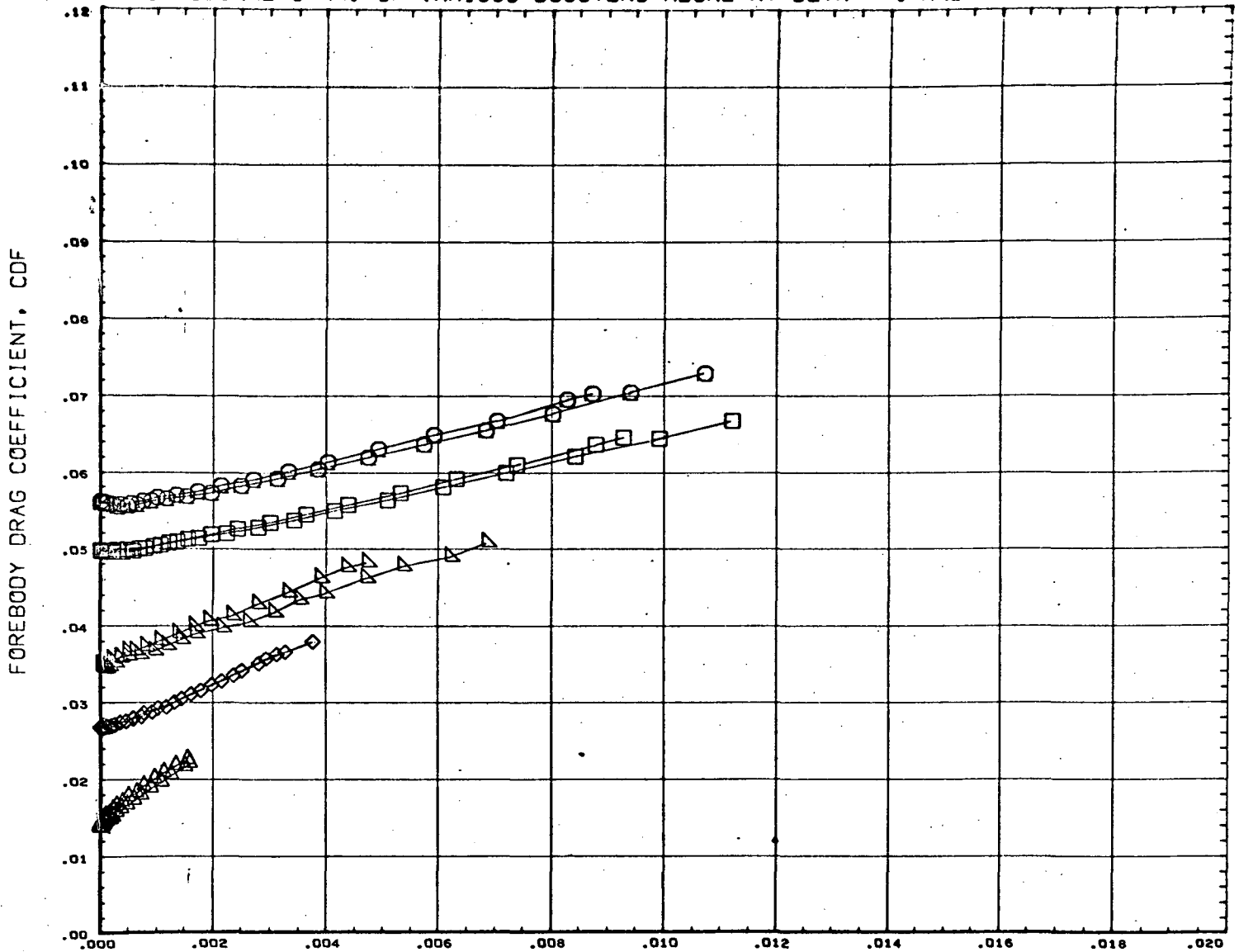
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 372

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1) ○	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2) □	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3) △	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4) ◇	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5) ▽	MDAC S-222 BOOSTER ALONE (T3-CG) B4

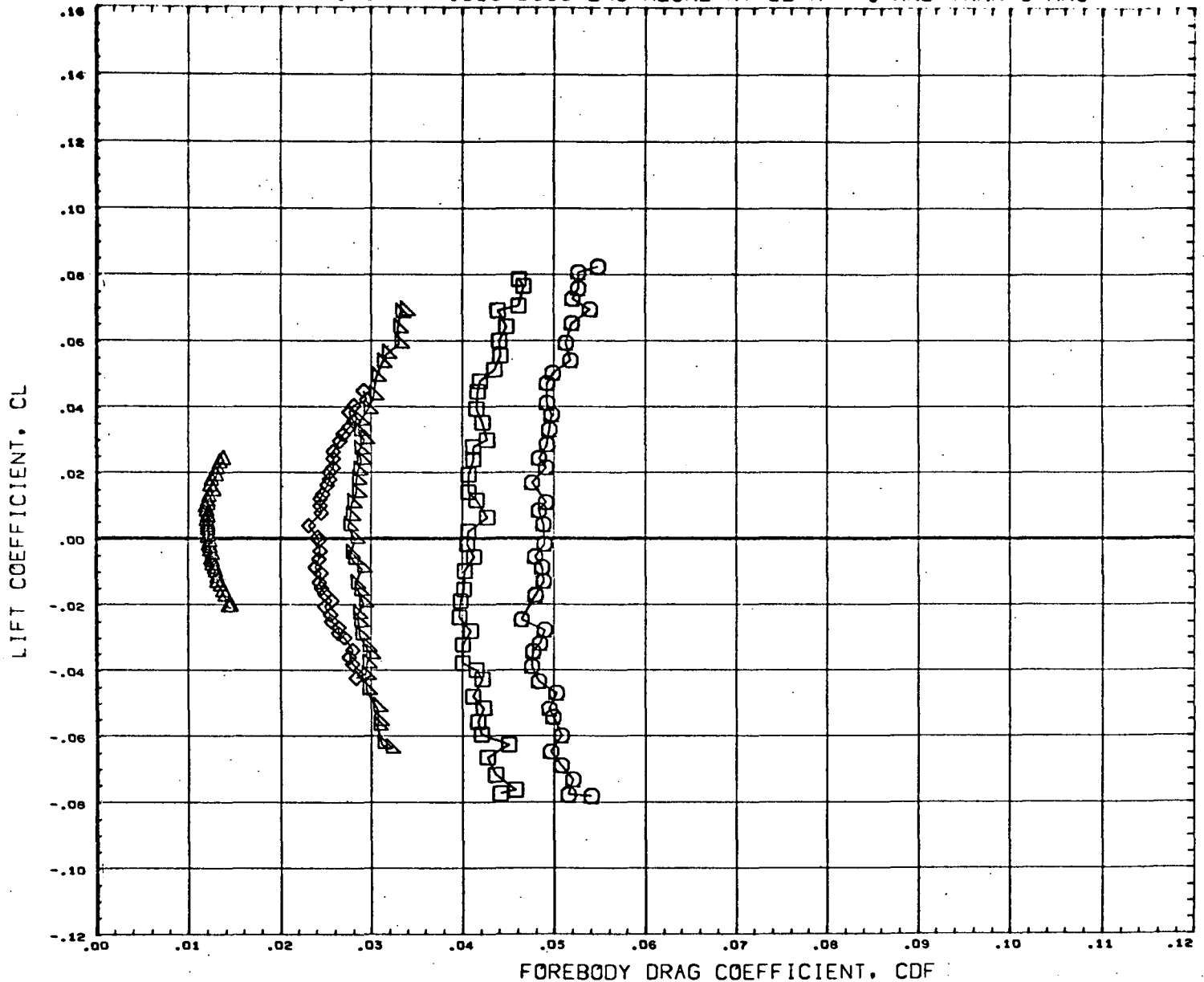
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.3004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 373

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84

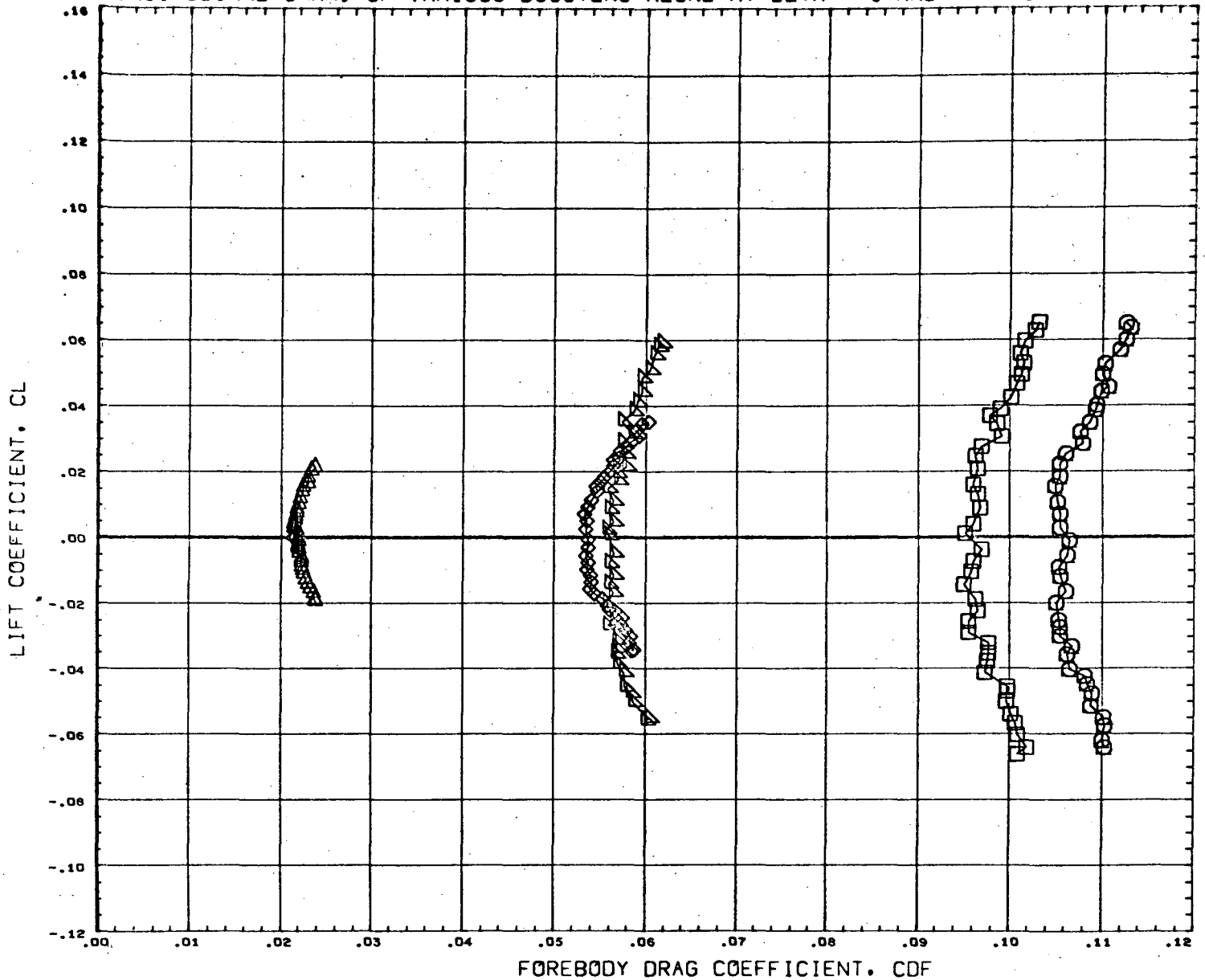
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 268.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH .89

PAGE 374

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

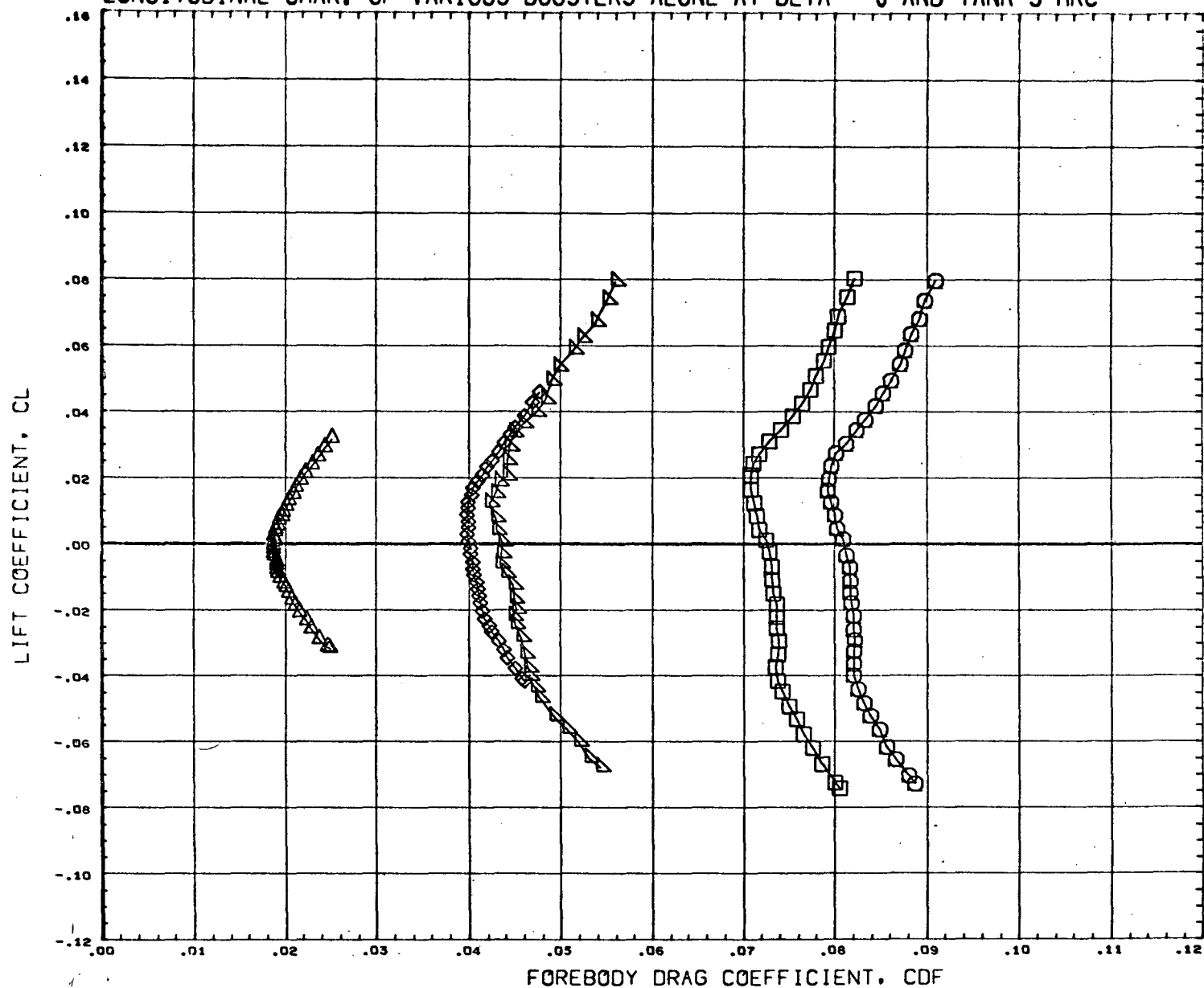
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 375

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

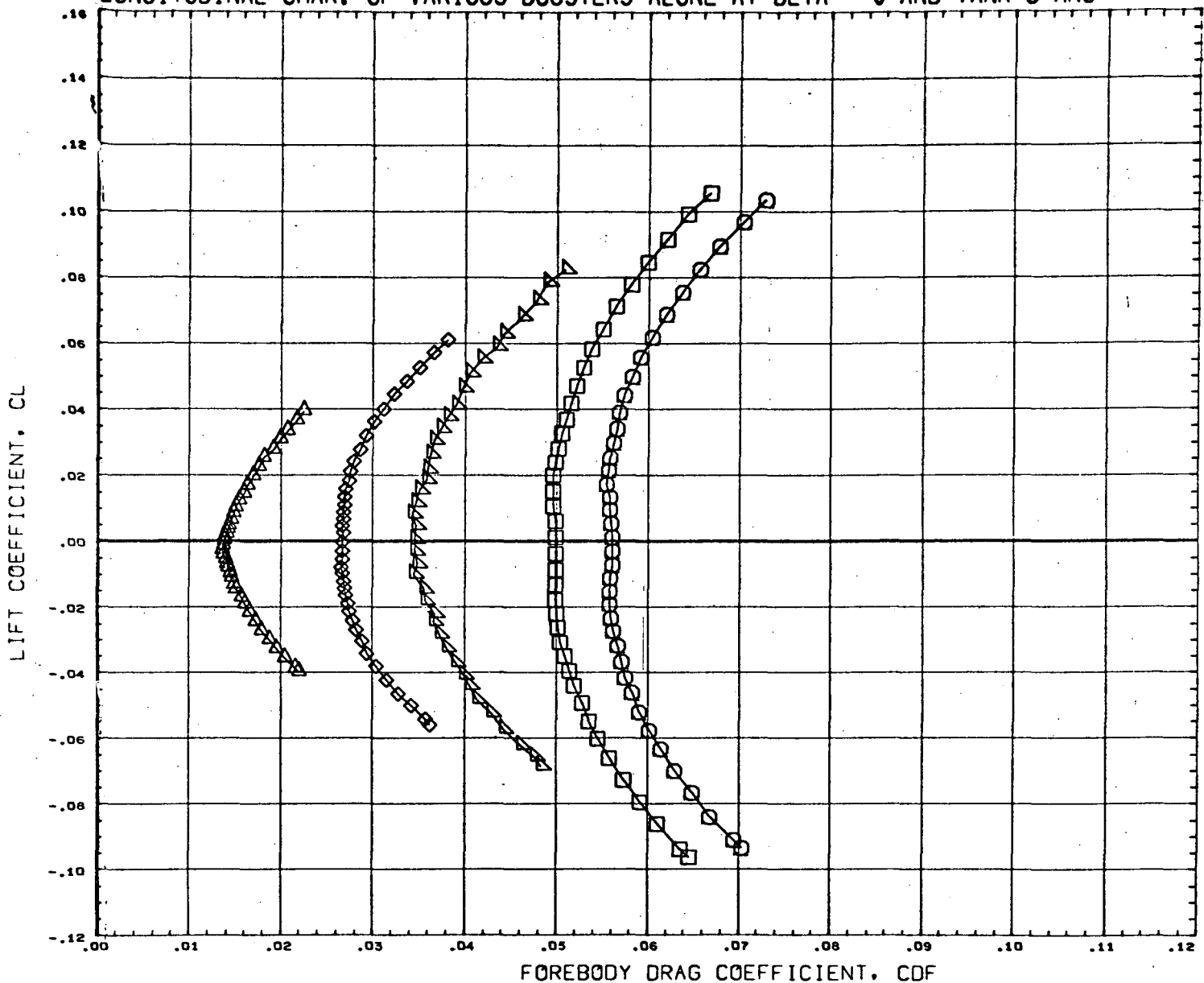
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 376

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

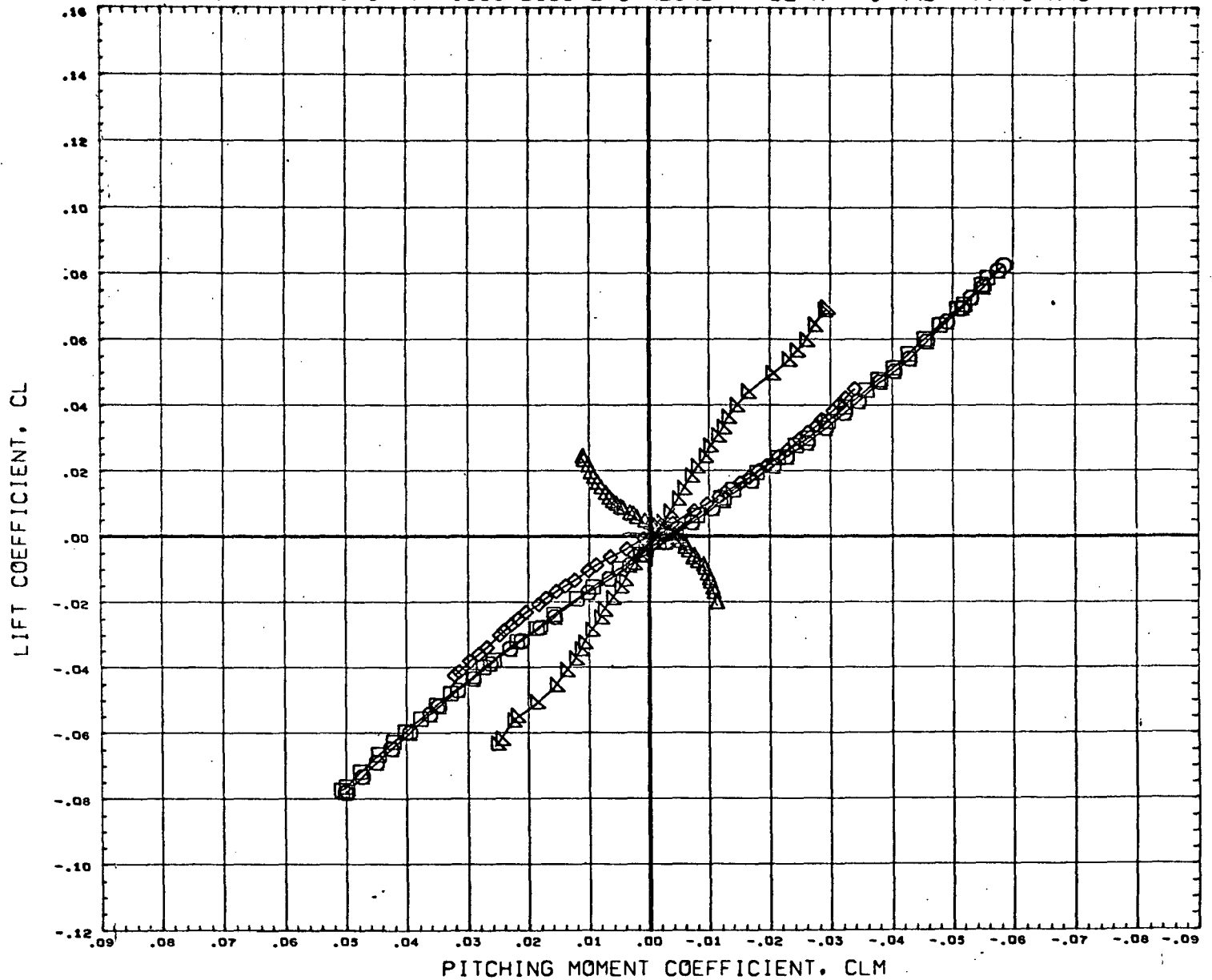
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 357.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 377

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(C078B1)	MDAC S-222 BOOSTER ALONE (T3-CG)	B1
(C078B2)	MDAC S-222 BOOSTER ALONE (T3-CG)	B2
(C078B3)	MDAC S-222 BOOSTER ALONE (T3-CG)	B2S
(C078B4)	MDAC S-222 BOOSTER ALONE (T3-CG)	B3
(C078B5)	MDAC S-222 BOOSTER ALONE (T3-CG)	B4

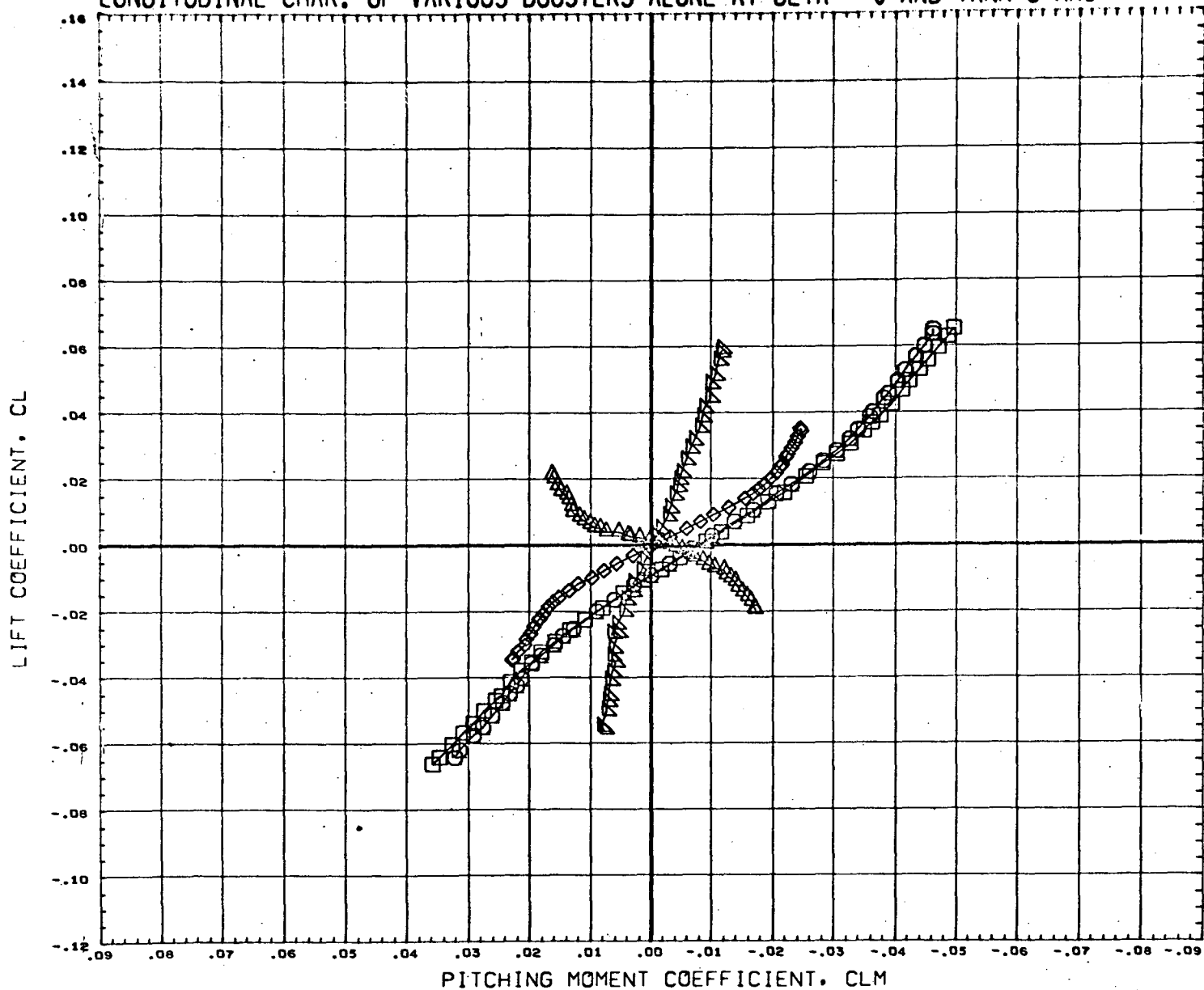
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 378

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

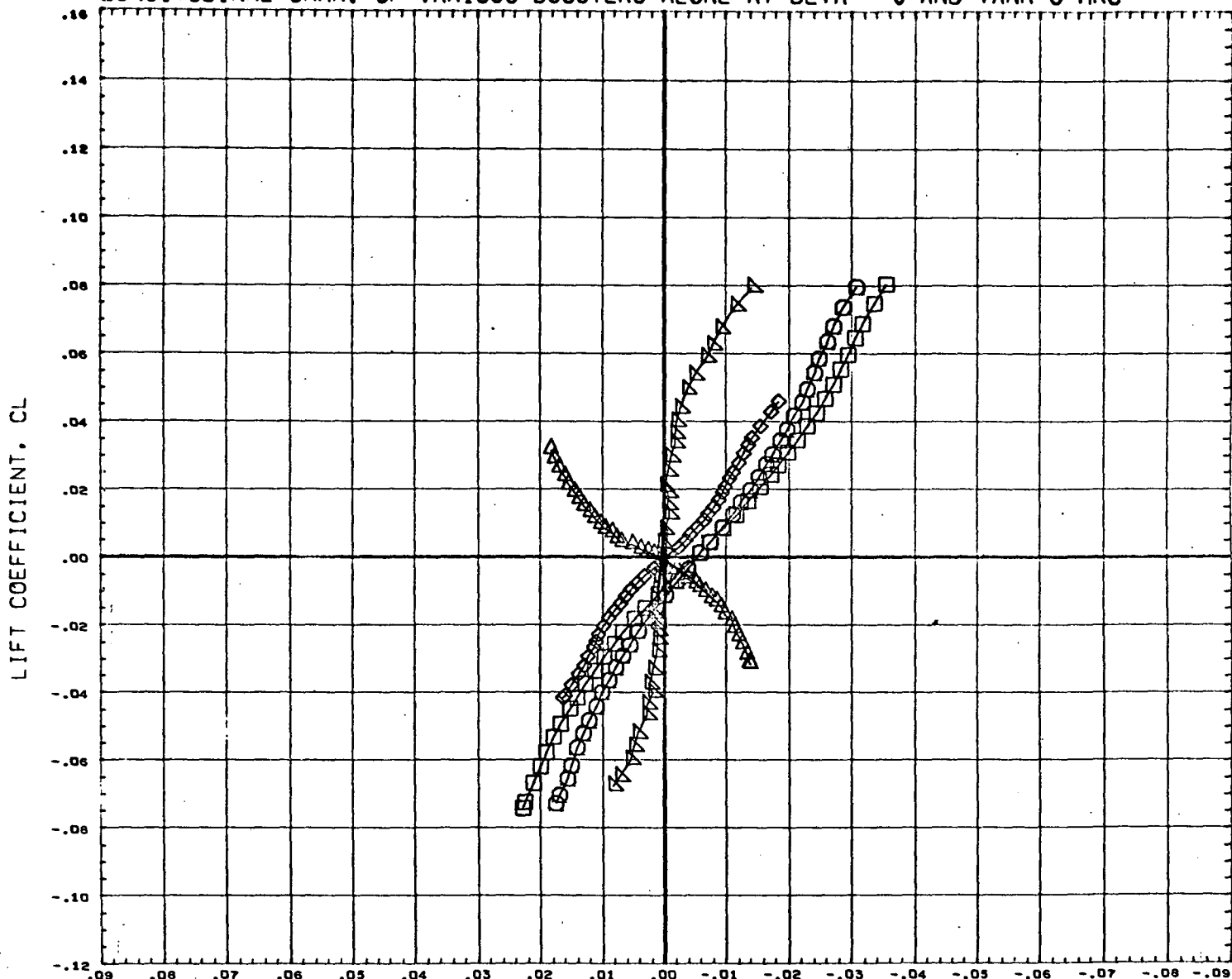


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 882.0004 IN.
(CD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP 557.0004 IN.
(CD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 1.08

PAGE 379

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



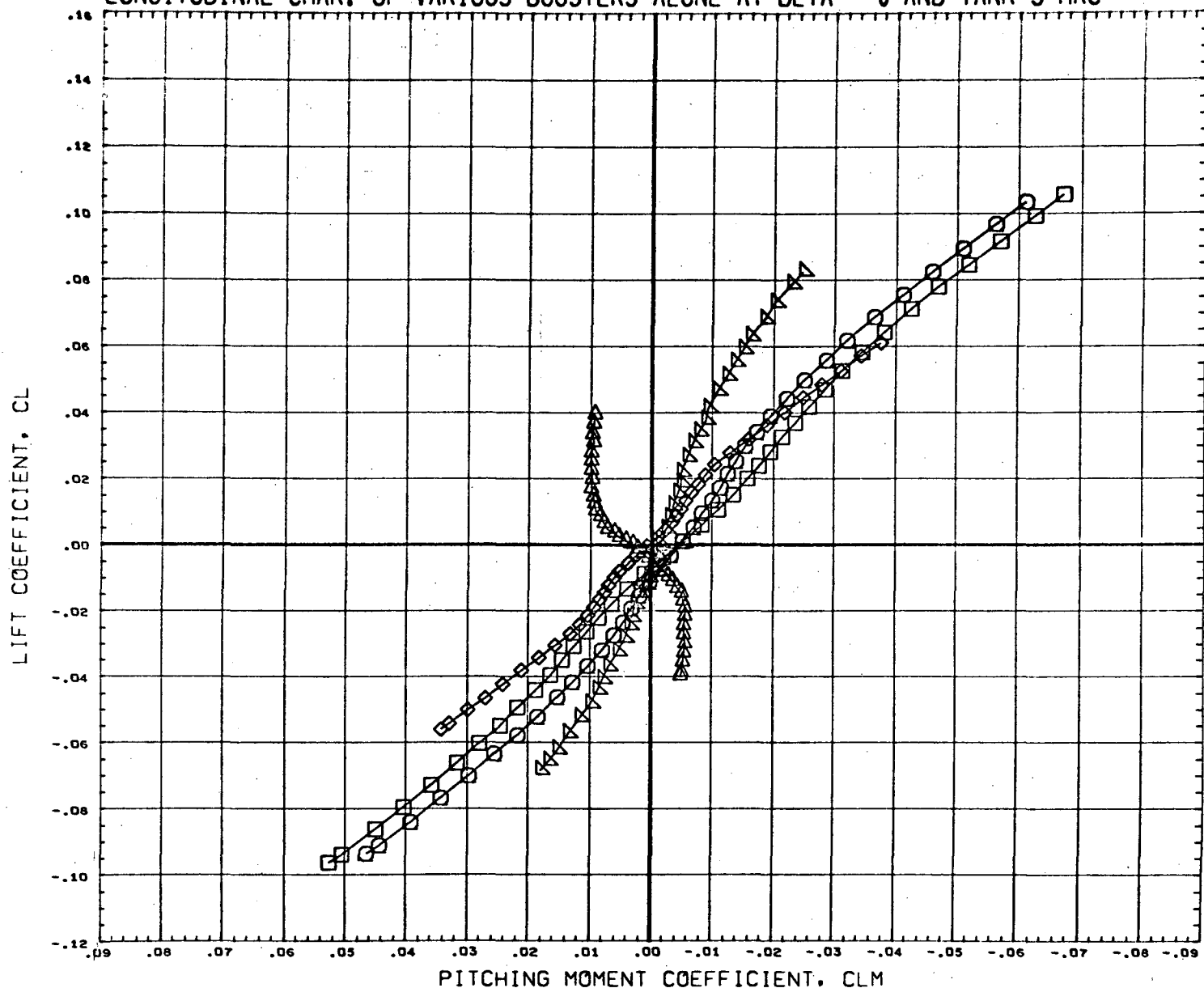
PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF 609.5004 IN.
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF 882.0004 IN.
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	YMRP 557.0004 IN.
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP 288.7004 IN.
			SCALE 200.0004 IN.
			0.0060

MACH 2.20

PAGE 380

LONGITUDINAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000
(CD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000
(CD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82s	0.000
(CD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000
(CD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000

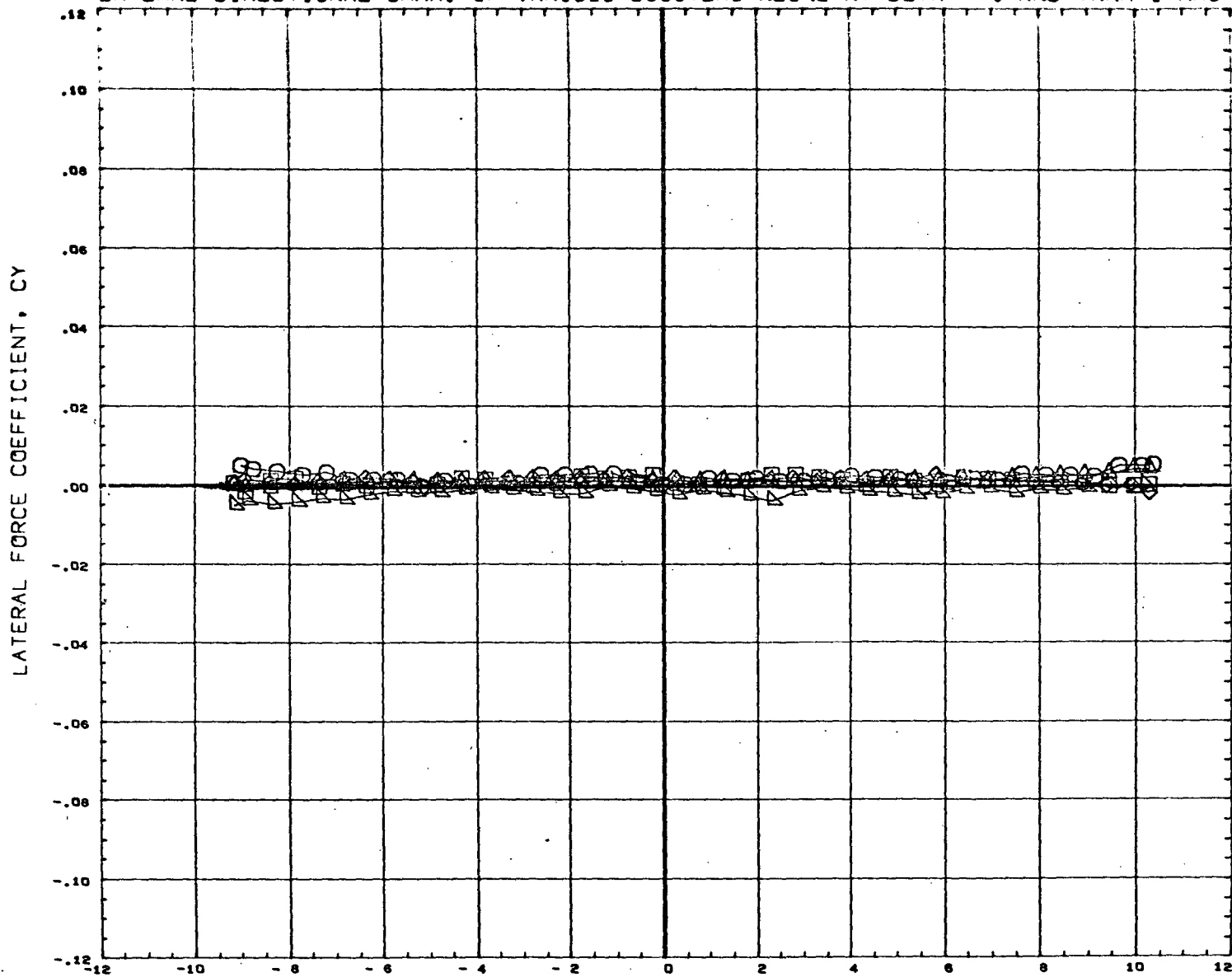
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

4.47

PAGE 381

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



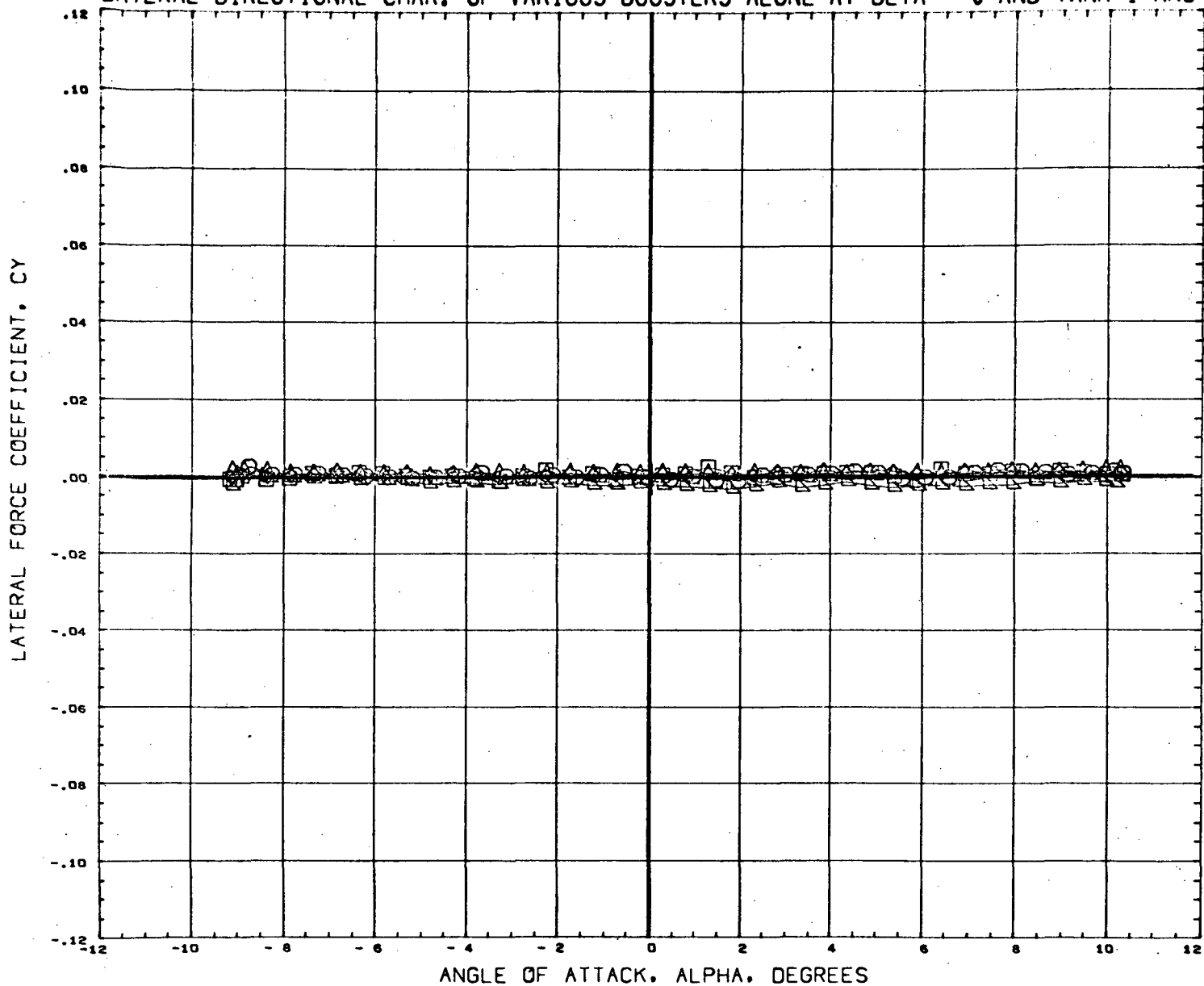
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRF	557.0004	IN.
YMRF	277.3004	IN.
ZMRF	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 382

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

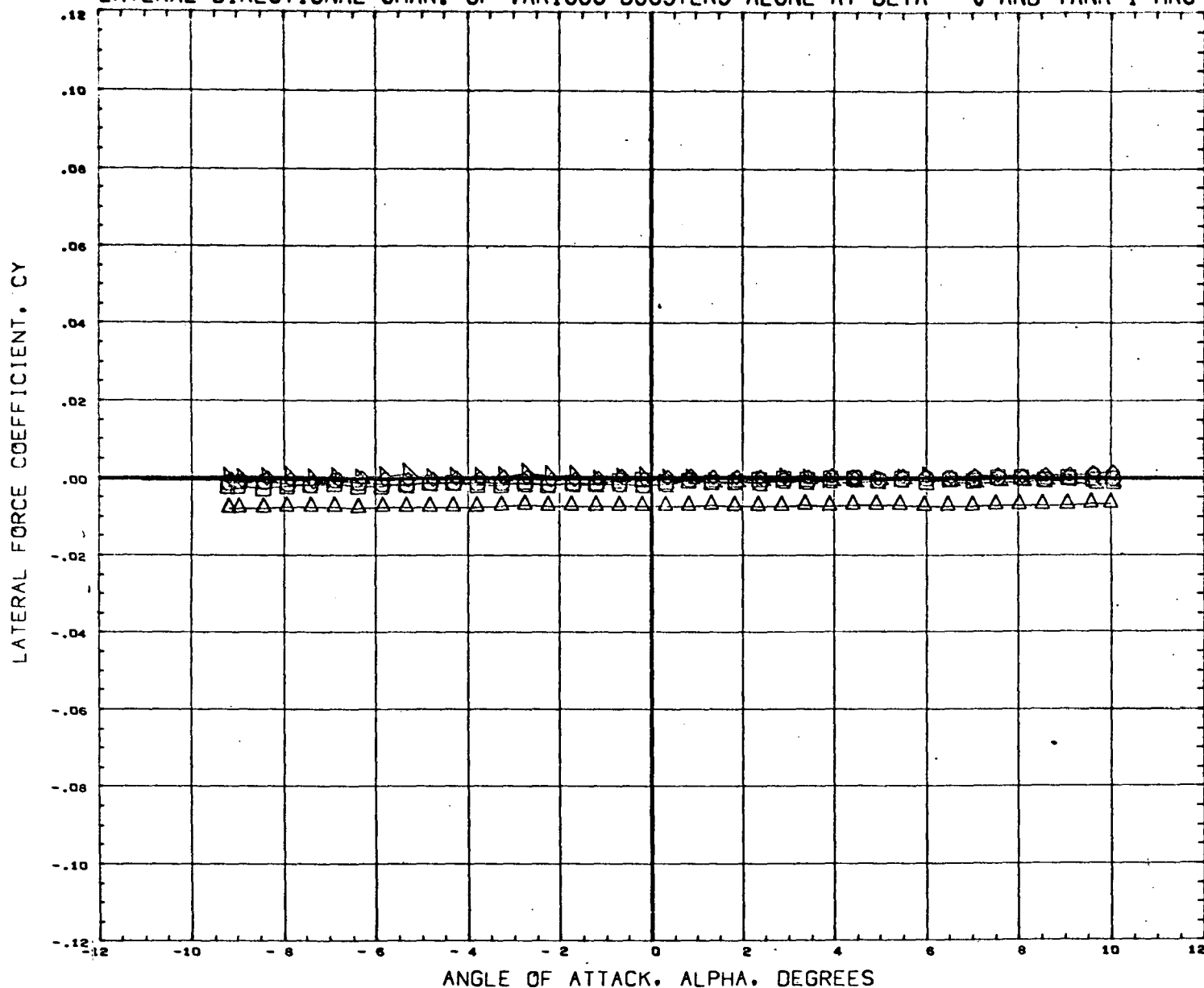
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 383

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

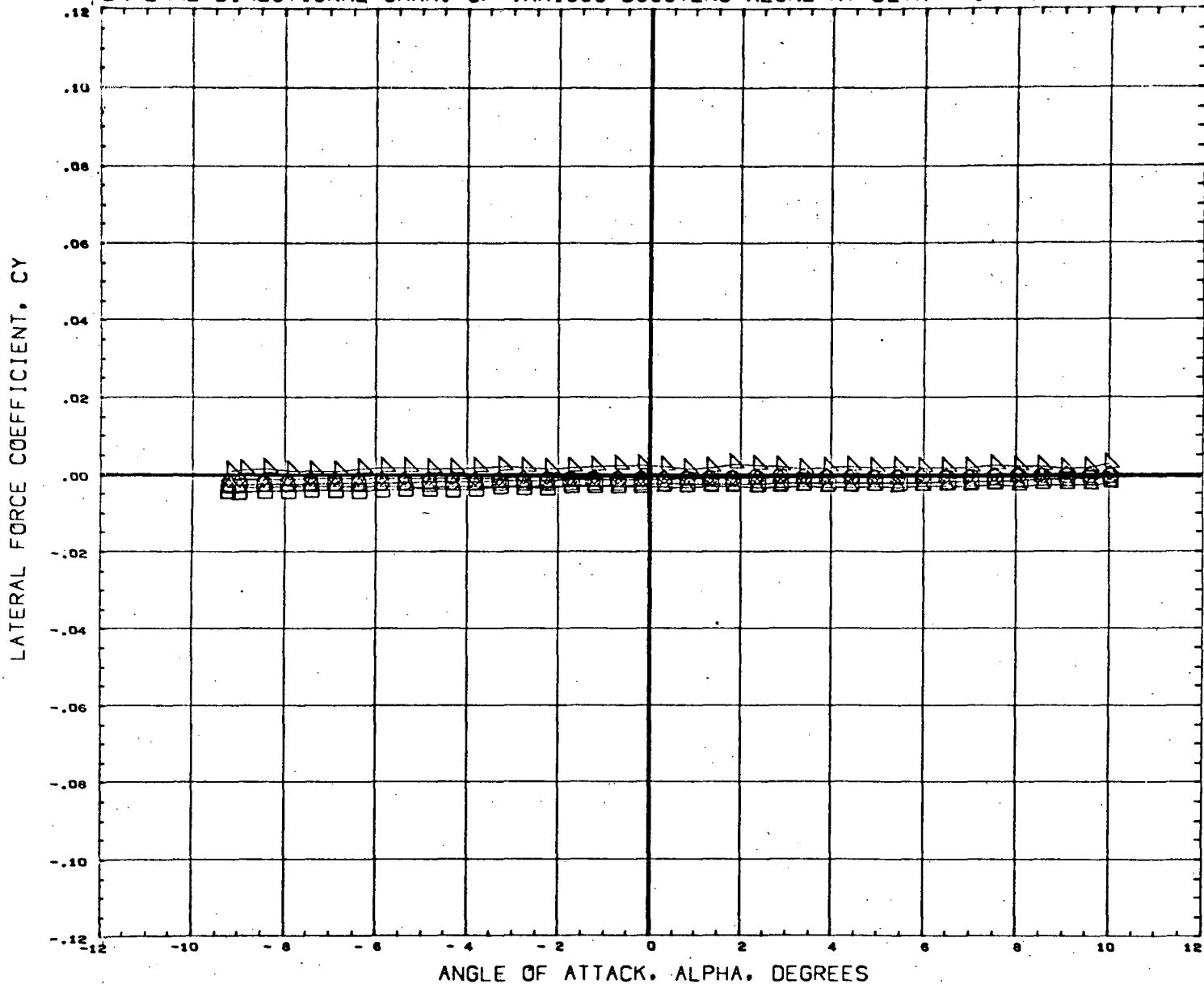


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000	LREF 609.5004 IN.
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000	BREF 882.0004 IN.
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000	YMRP 557.0004 IN.
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000	YMRP 277.3004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 2.20

PAGE 384

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



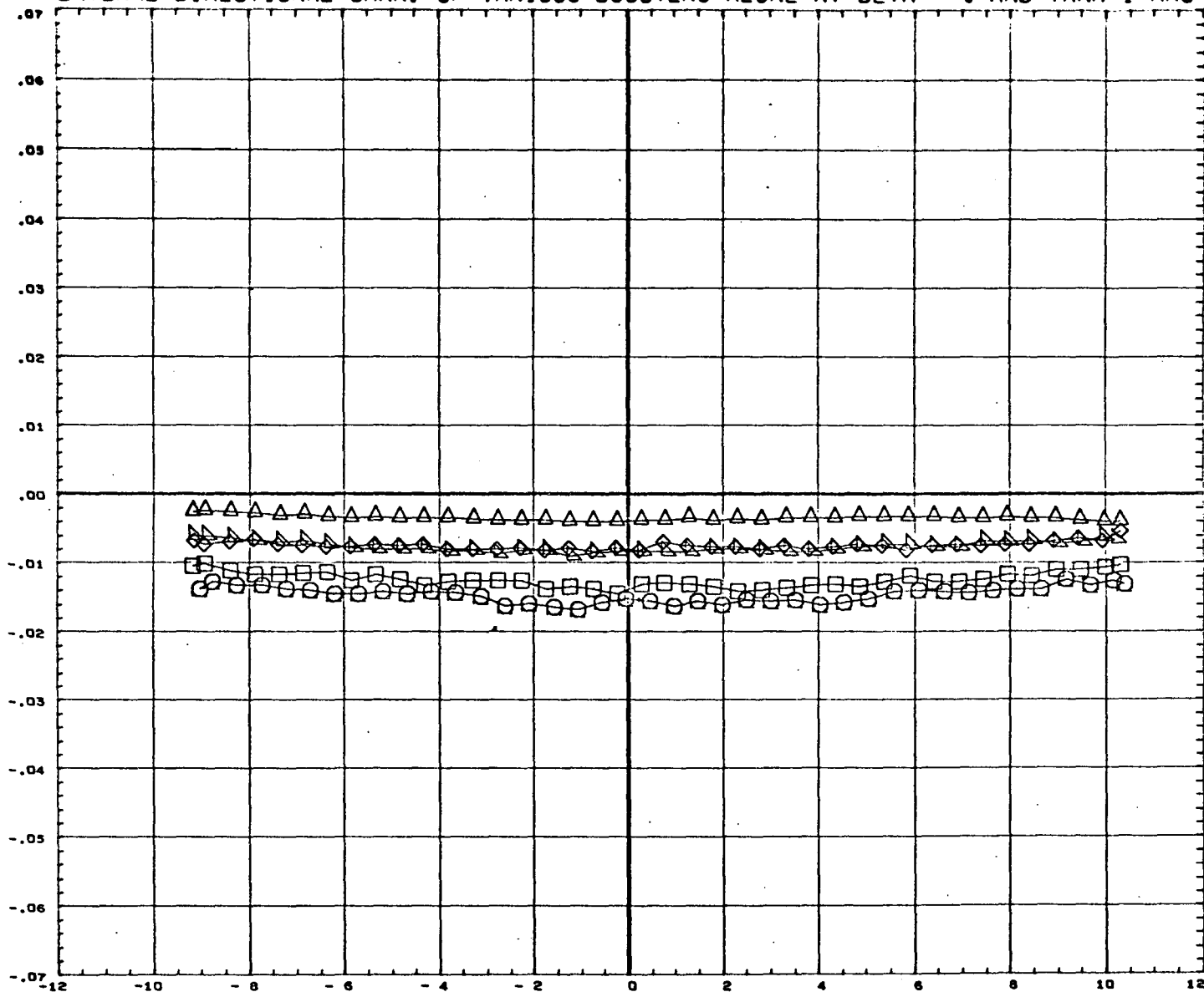
DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION
(RD78A1)		MDAC S-222 BOOSTER ALONE (T1-CG) 81	0.000	SREF 3155.3040 SQ.FT.
(RD78A2)		MDAC S-222 BOOSTER ALONE (T1-CG) 82	0.000	LREF 609.5004 IN.
(RD78A3)		MDAC S-222 BOOSTER ALONE (T1-CG) 82S	0.000	BREF 682.0004 IN.
(RD78A4)		MDAC S-222 BOOSTER ALONE (T1-CG) 83	0.000	XMRP 557.0004 IN.
(RD78A5)		MDAC S-222 BOOSTER ALONE (T1-CG) 84	0.000	YMRP 277.3004 IN.
				ZMRP 200.0004 IN.
				SCALE 0.0060

MACH 4.47

PAGE 385

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

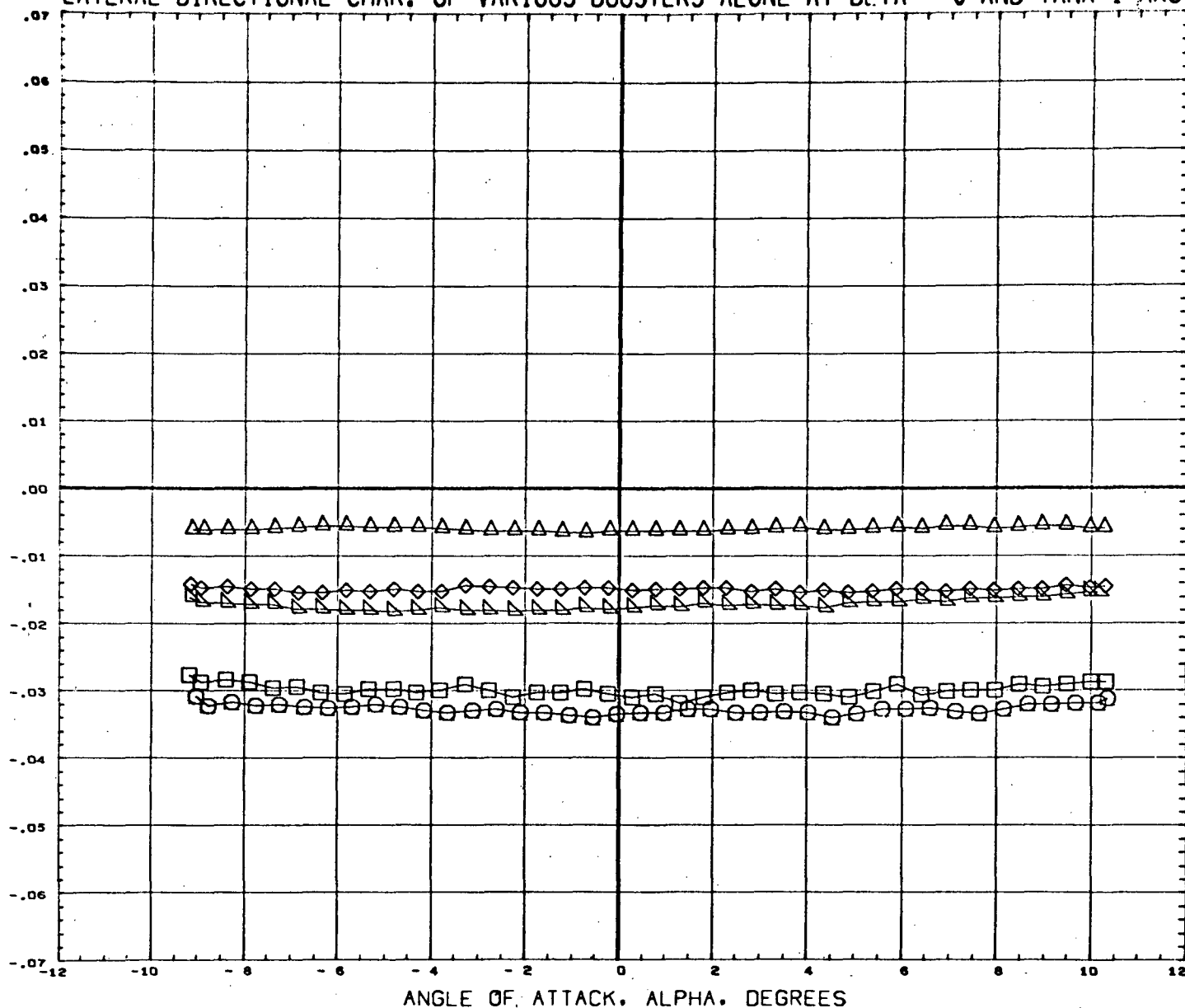
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 386

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R078A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(R078A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(R078A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(R078A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

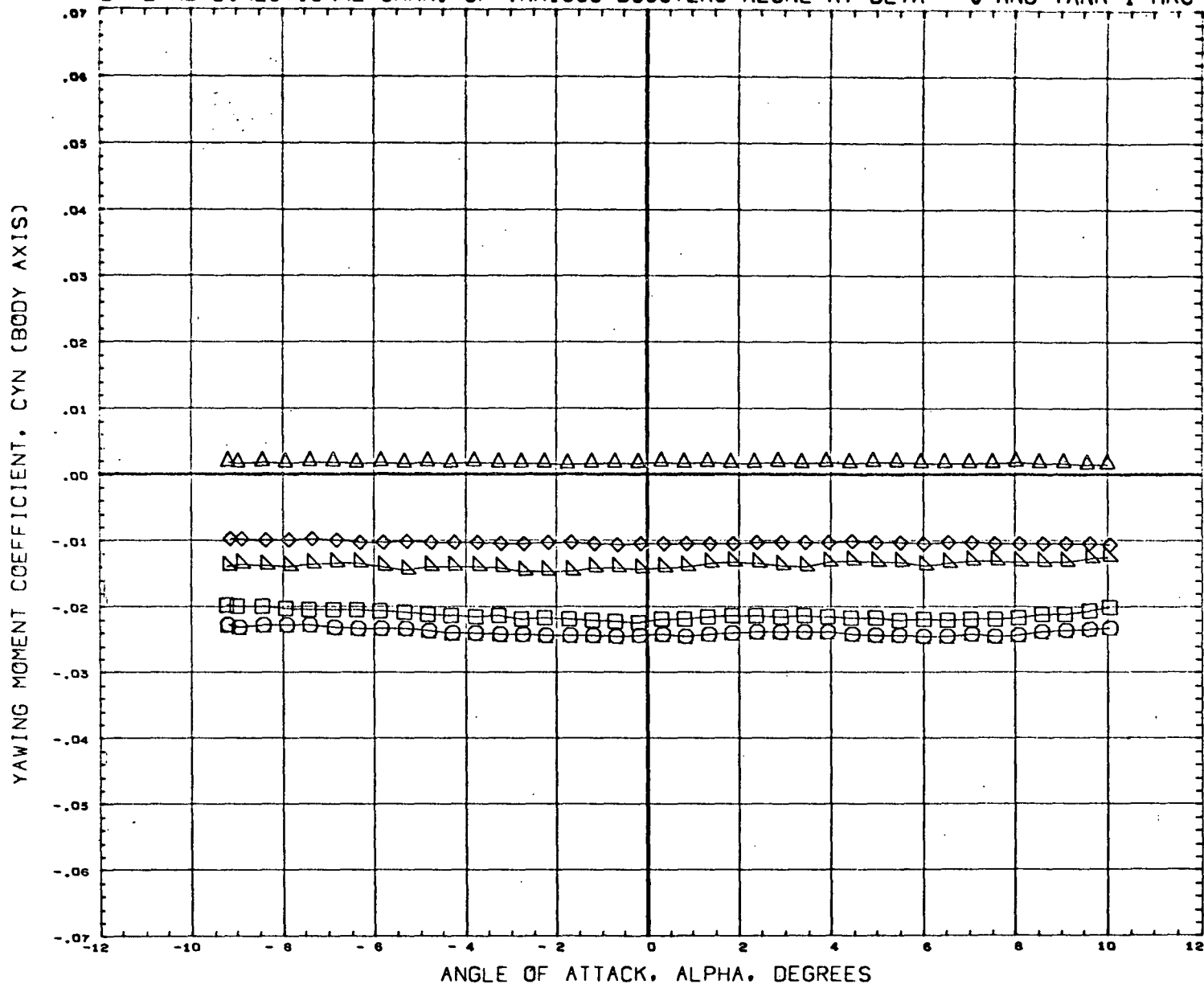
BETA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 387

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

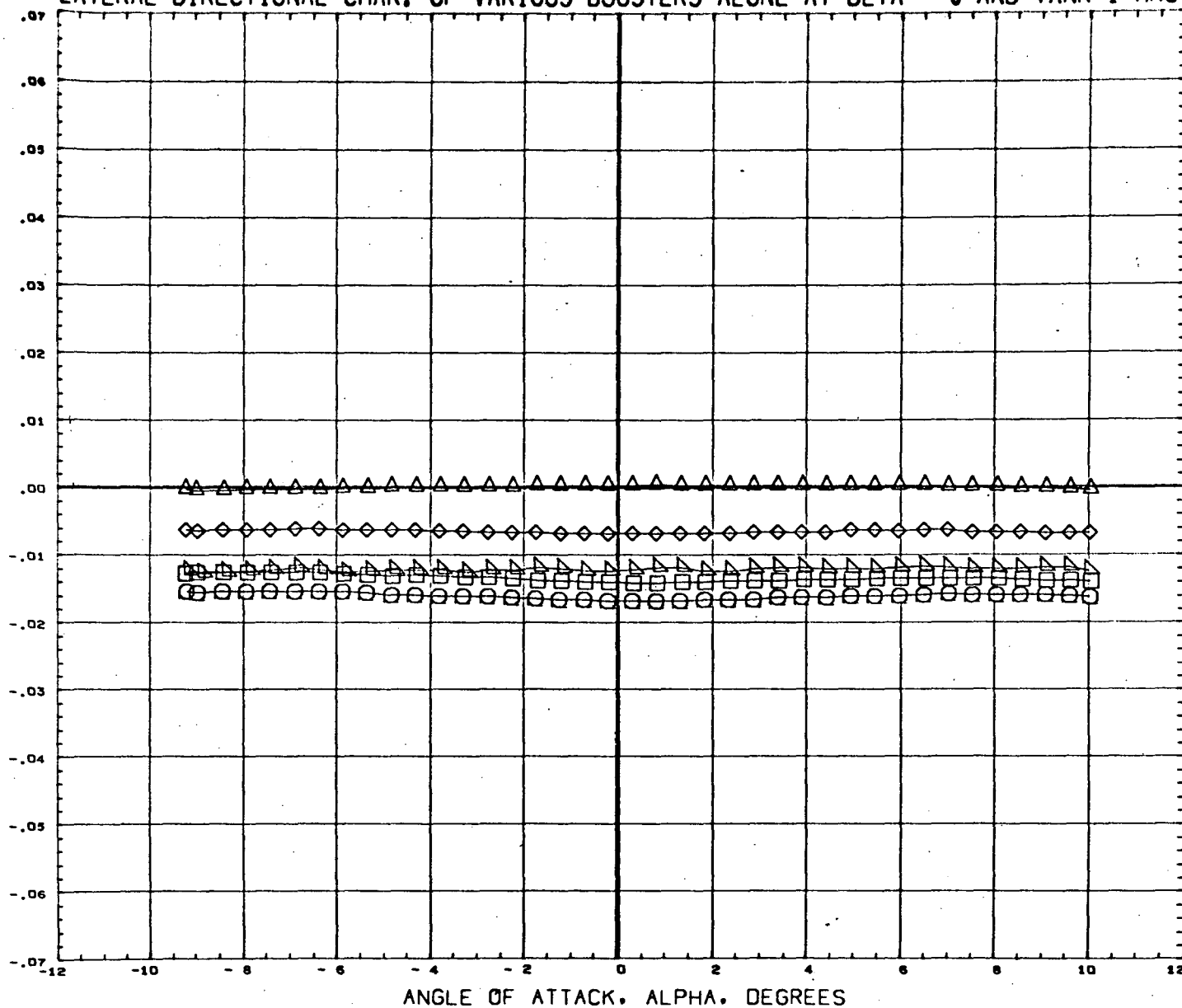
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 388

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

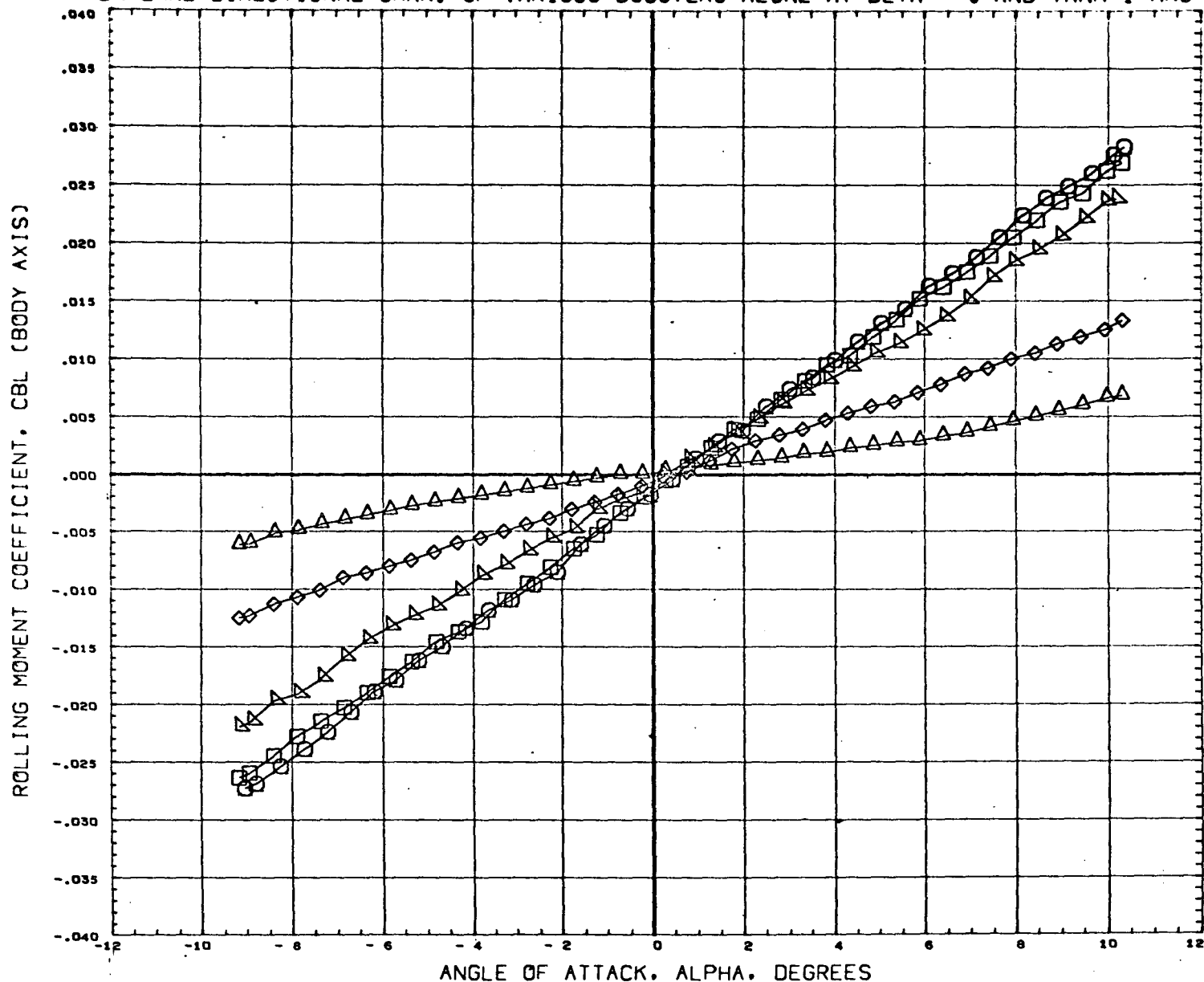
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 682.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 389

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



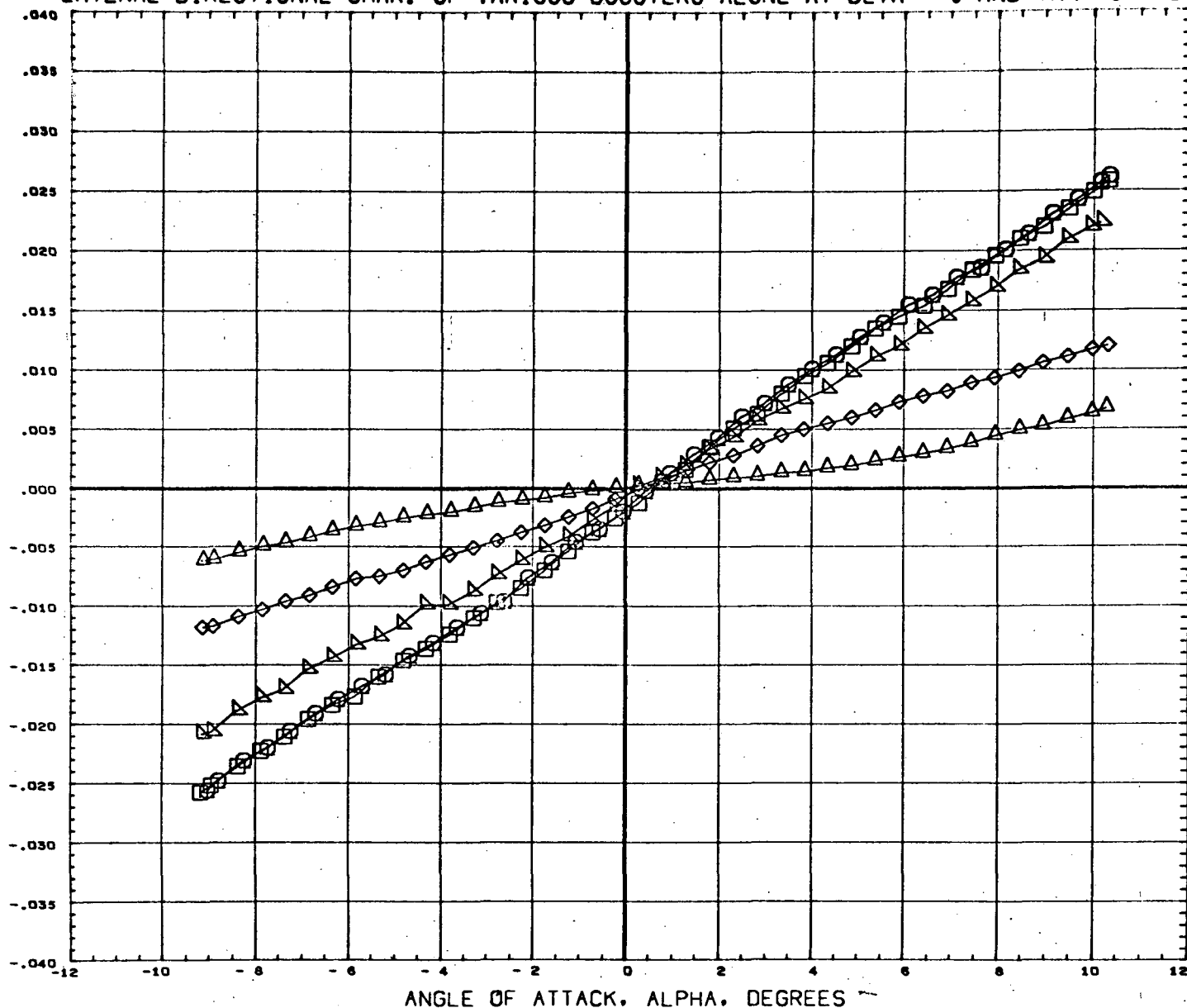
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	.882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



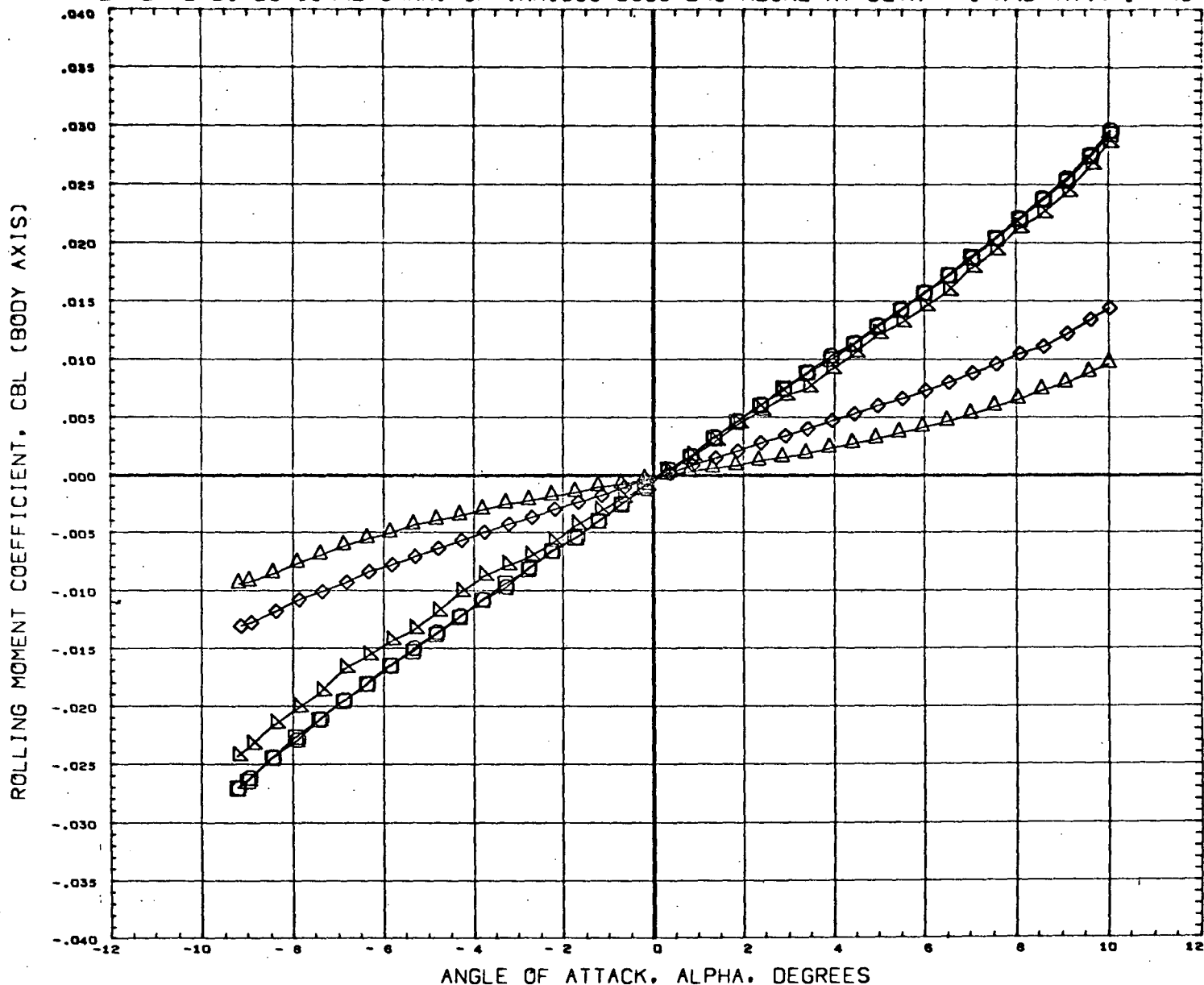
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) 81	0.000
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) 82	0.000
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) 82S	0.000
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) 83	0.000
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) 84	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 391

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

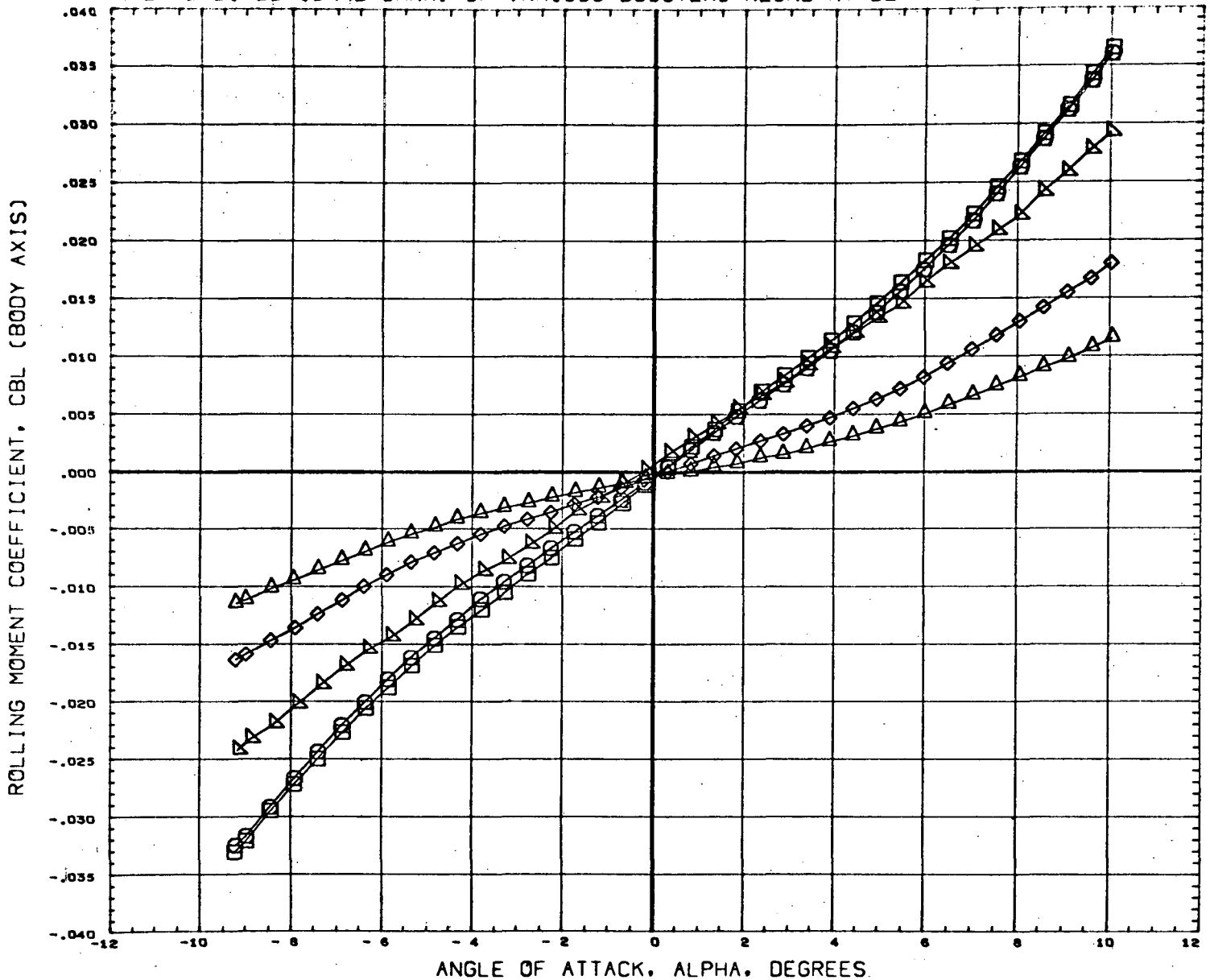
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 682.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 392

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD78A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD78A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2s
(RD78A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD78A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

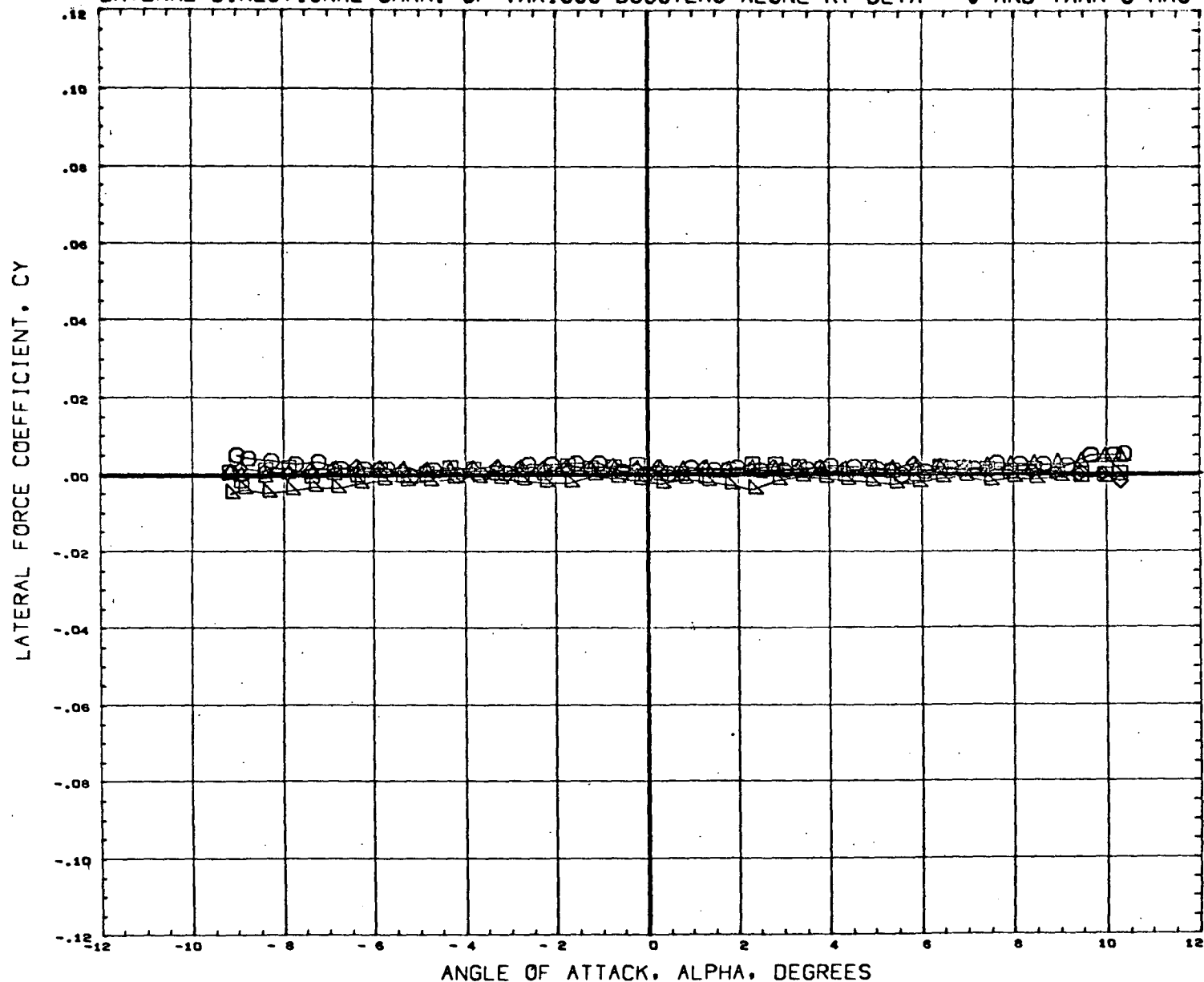
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMHP	557.0004 IN.
YMHP	277.3004 IN.
ZMHP	200.0004 IN.
SCALE	0.0060

MACH 4.47

PAGE 393

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2s
(RD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

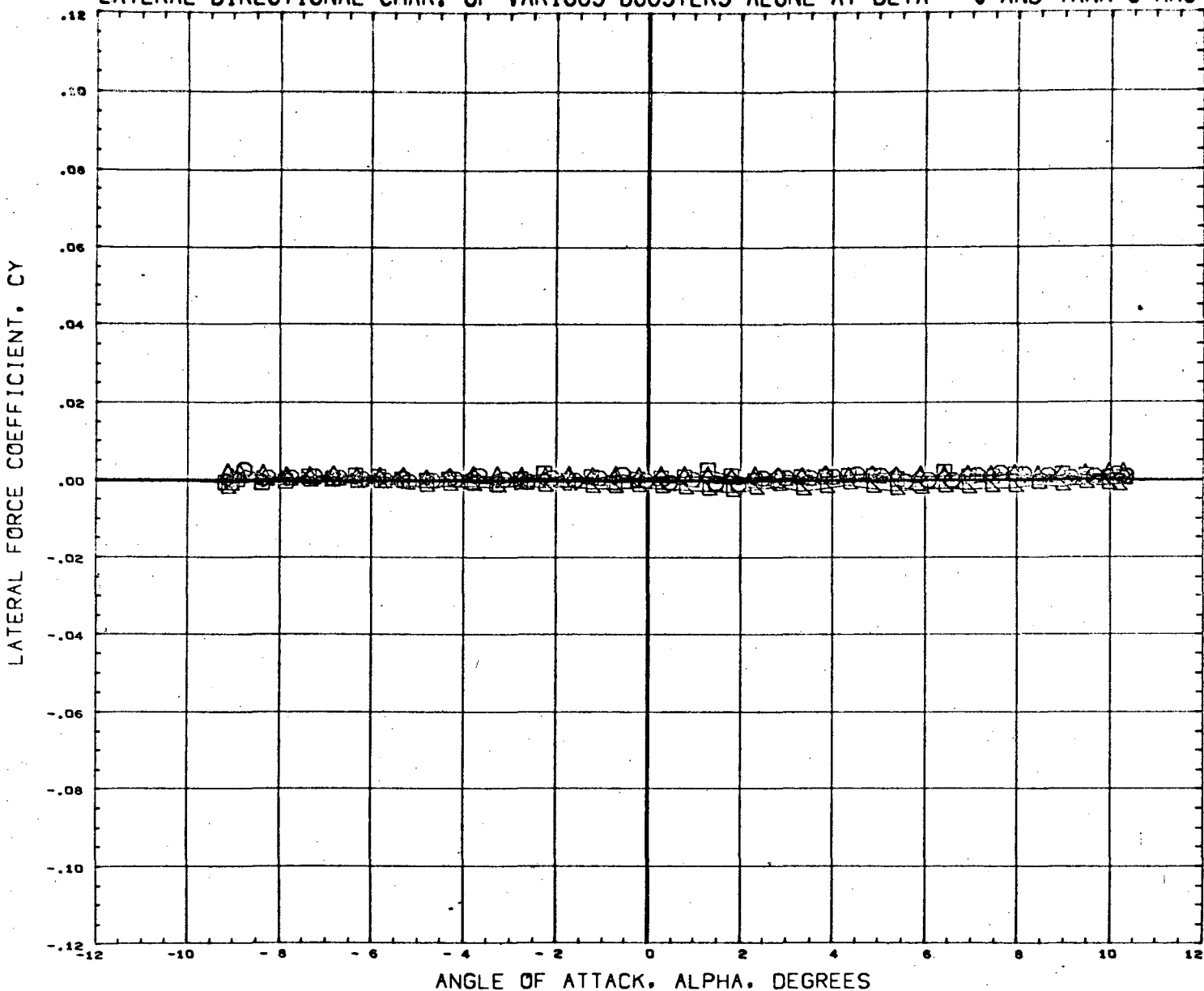
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH .89

PAGE 394

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

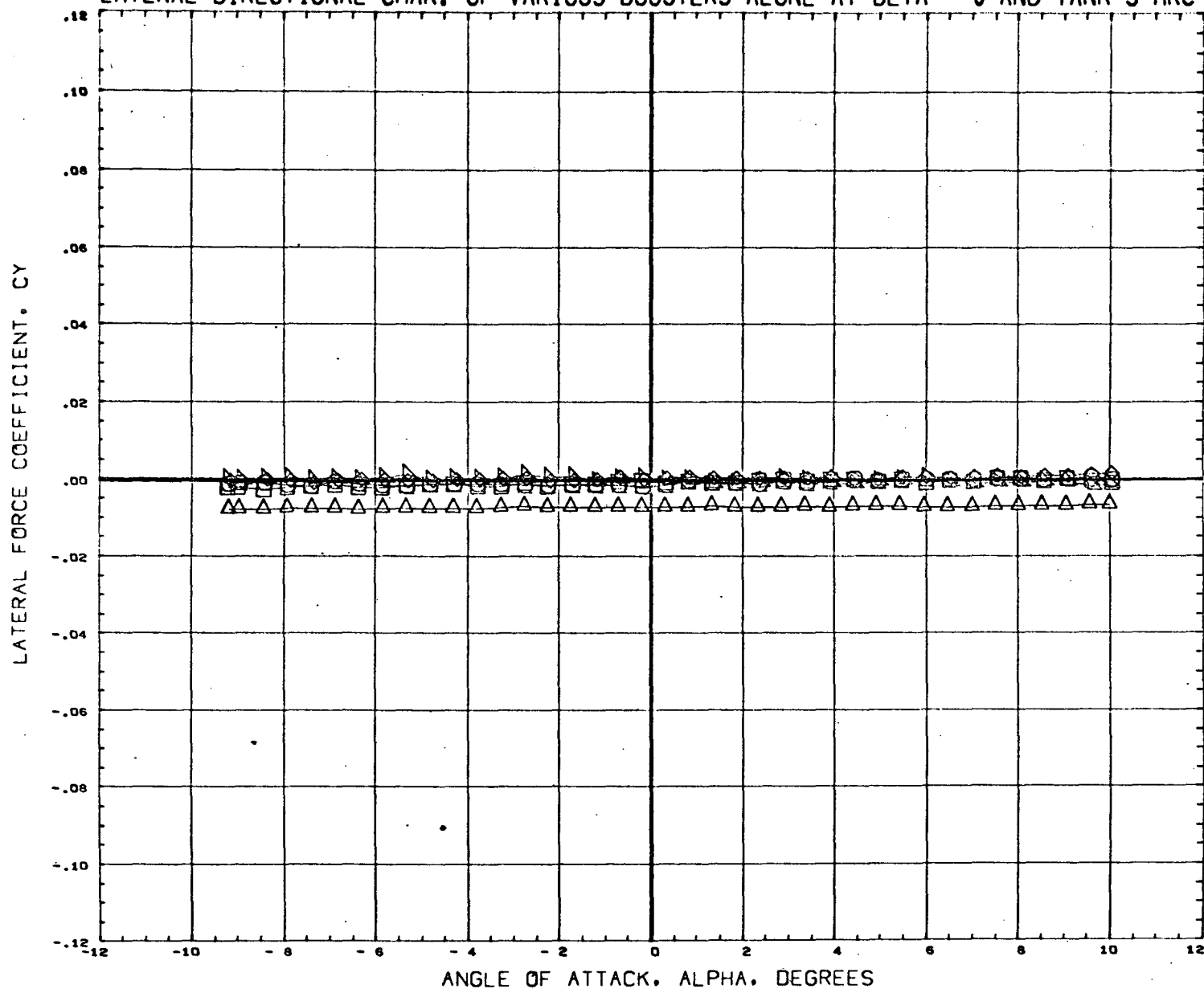


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION	
(R078B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF	3155.3040 SQ.FT.
(R078B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF	609.5004 IN.
(R078B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF	882.0004 IN.
(R078B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMRP	557.0004 IN.
(R078B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMRP	288.7004 IN.
			ZMRP	200.0004 IN.
			SCALE	0.0060

MACH 1.08

PAGE 395

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81
(RD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82
(RD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S
(RD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83
(RD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84

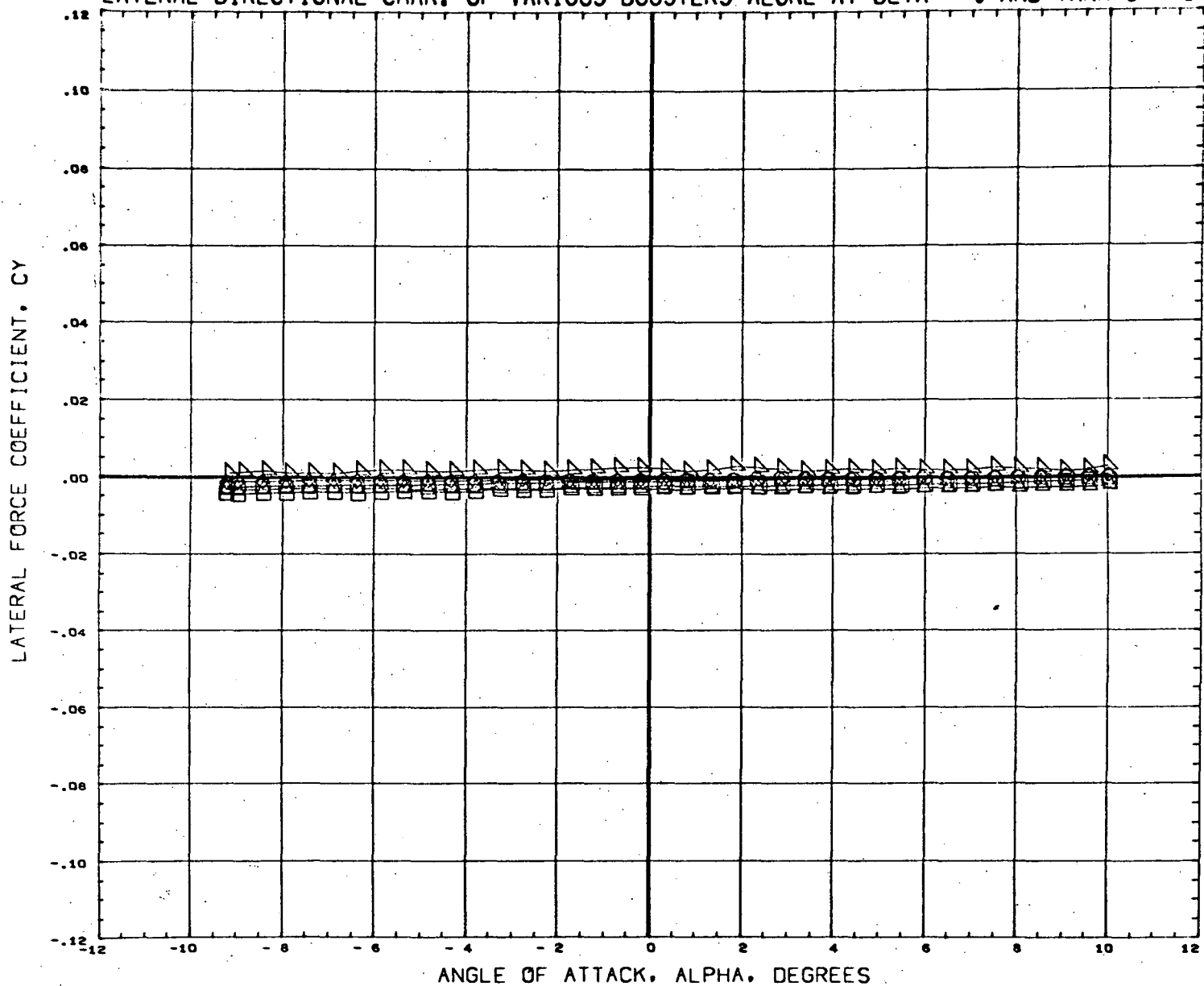
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 396

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81
(RD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82
(RD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S
(RD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83
(RD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84

BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

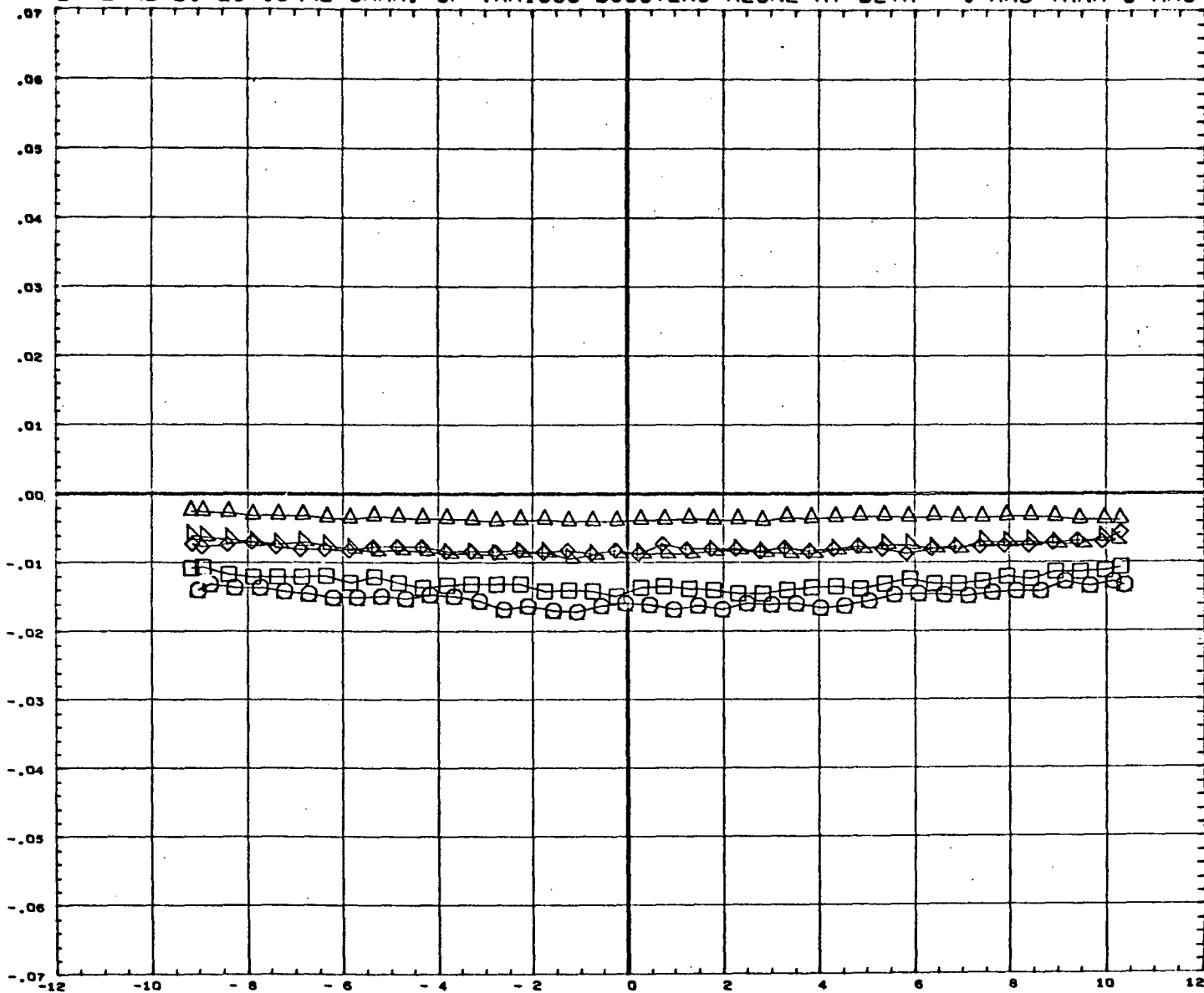
MACH

4.47

PAGE 397

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81
(RD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82
(RD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S
(RD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83
(RD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84

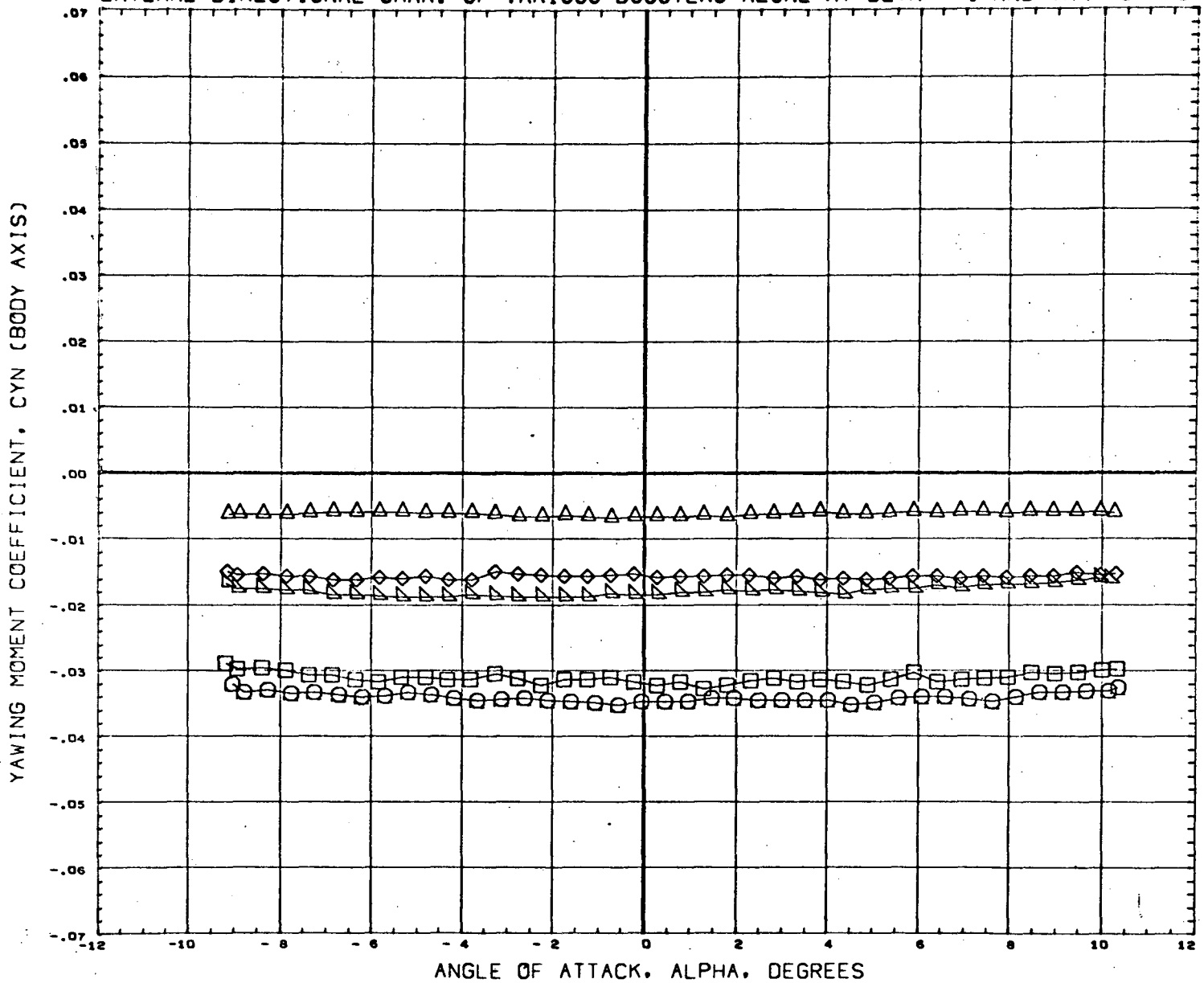
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 398

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA
(RD7881)	△	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000
(RD7882)	◇	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000
(RD7883)	□	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000
(RD7884)	○	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000
(RD7885)	▽	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000

BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

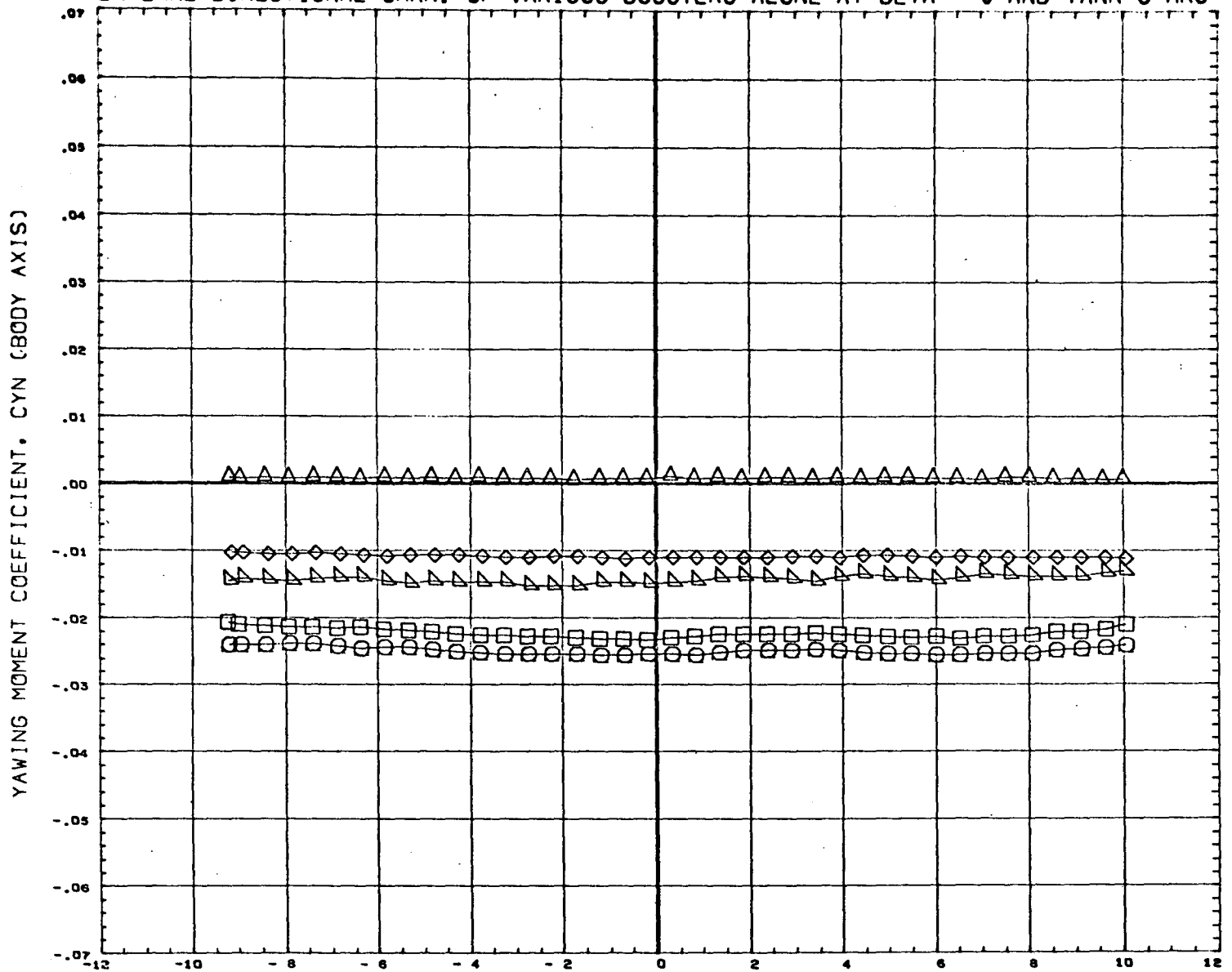
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

1.08

PAGE 399

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

BETA
0.000
0.000
0.000
0.000
0.000

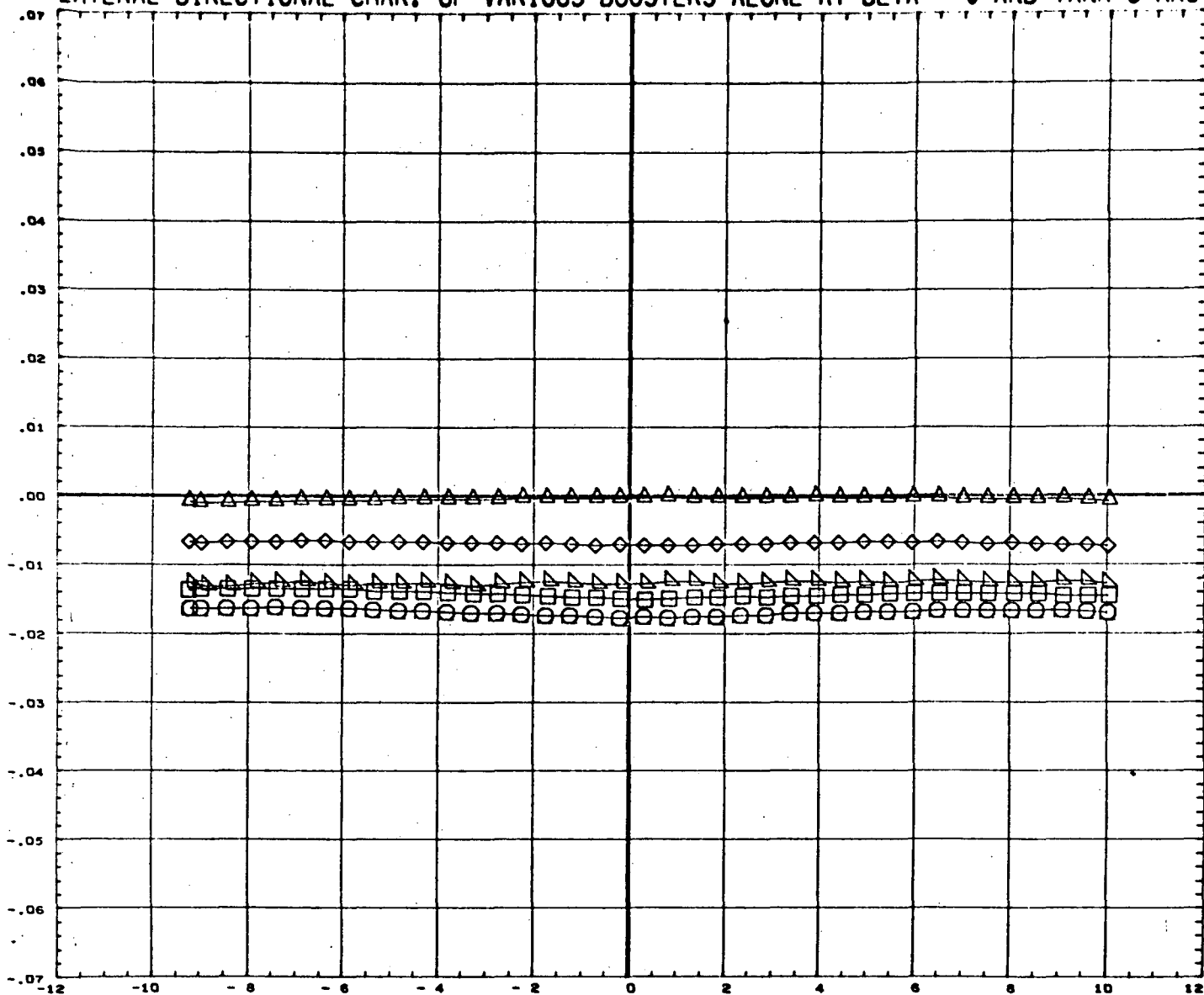
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 400

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

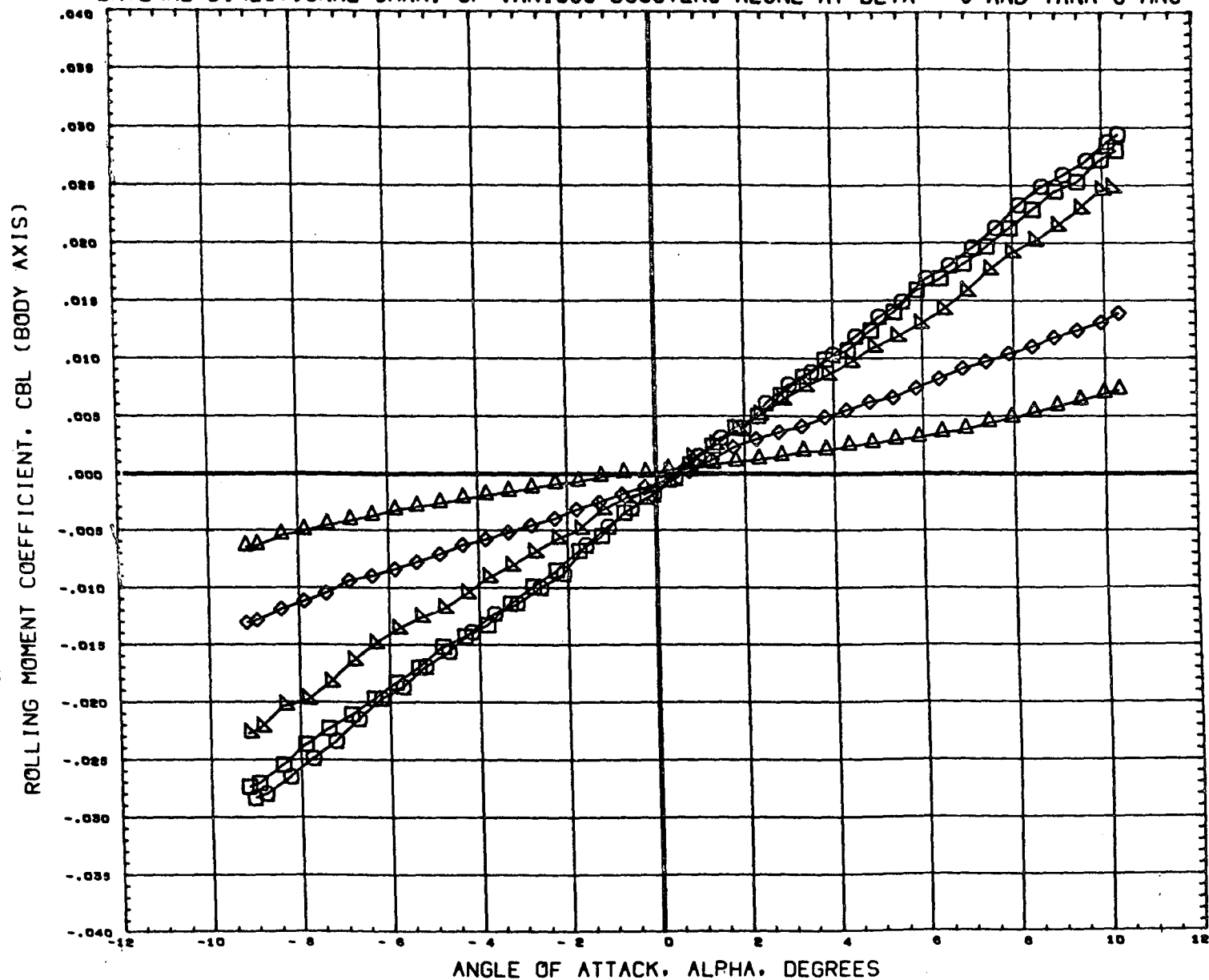
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 662.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 401

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



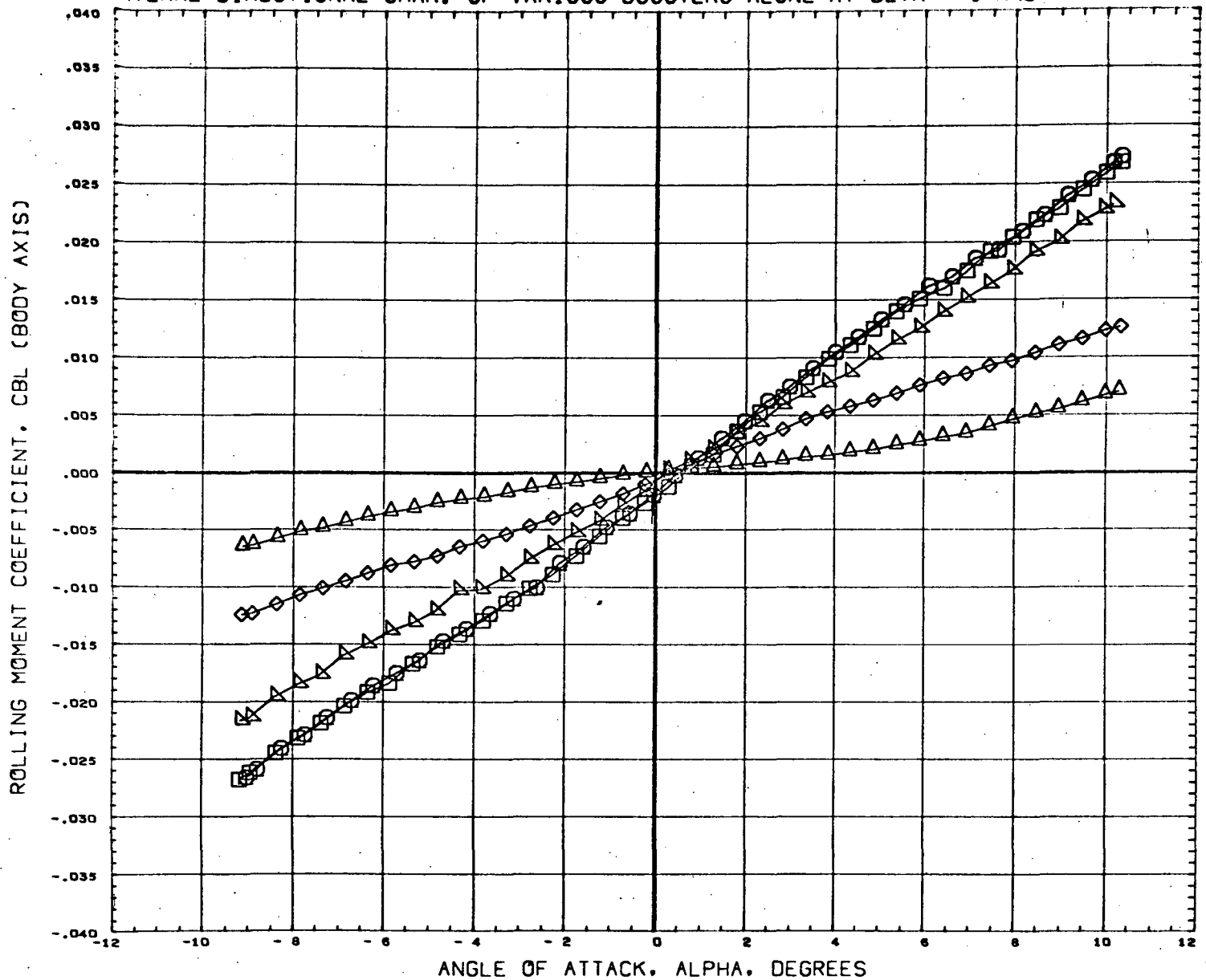
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(RD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000
(RD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000
(RD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000
(RD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000
(RD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) 85	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0080	

MACH .89

PAGE 402

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC

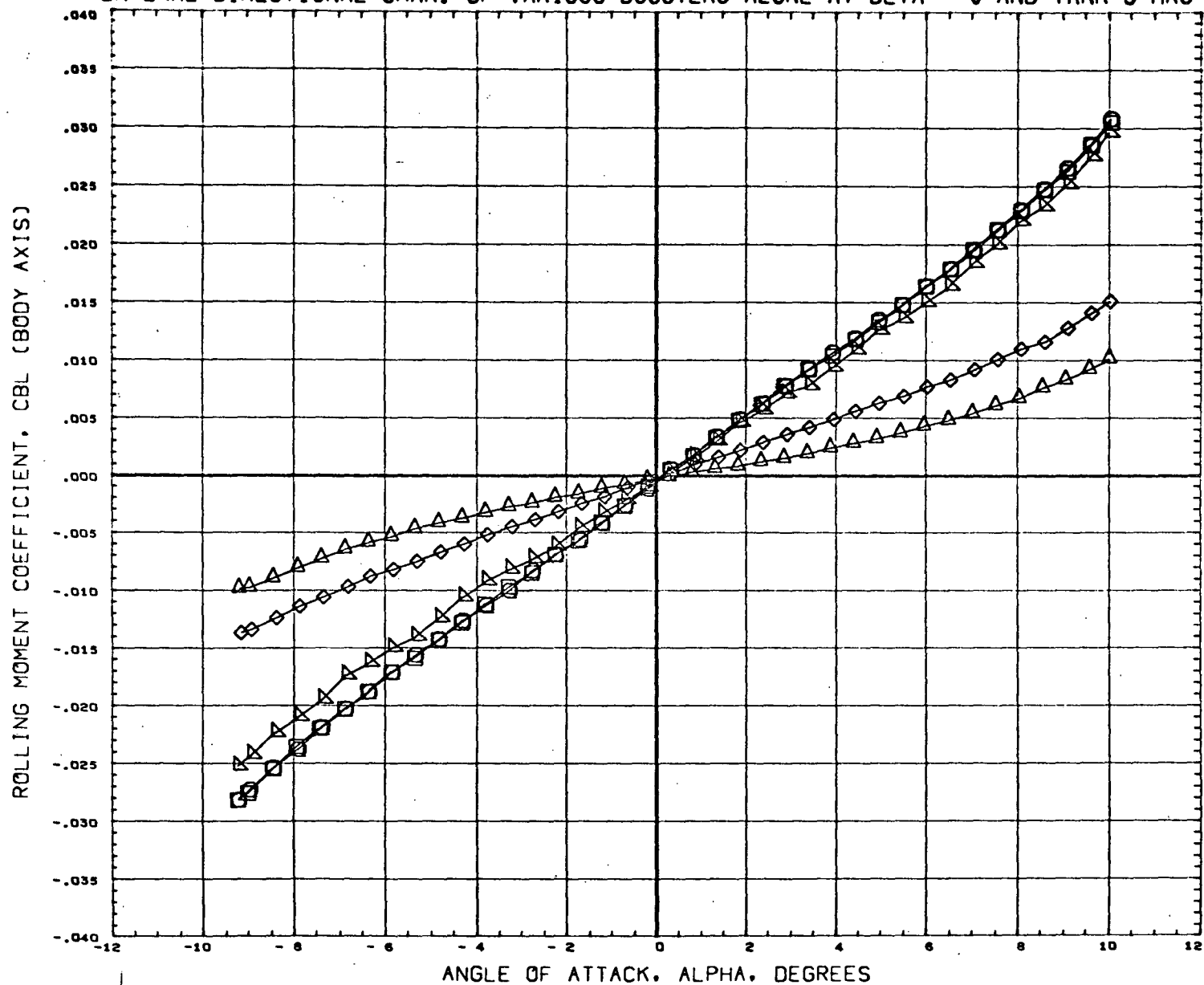


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFERENCE INFORMATION	
(RD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	0.000	SREF	3155.3040 SQ.FT.
(RD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	0.000	LREF	609.5004 IN.
(RD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	0.000	BREF	882.0004 IN.
(RD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	0.000	XMHP	557.0004 IN.
(RD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	0.000	YMHP	288.7004 IN.
			ZMHP	200.0004 IN.
			SCALE	0.0060

MACH 1.08

PAGE 403

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



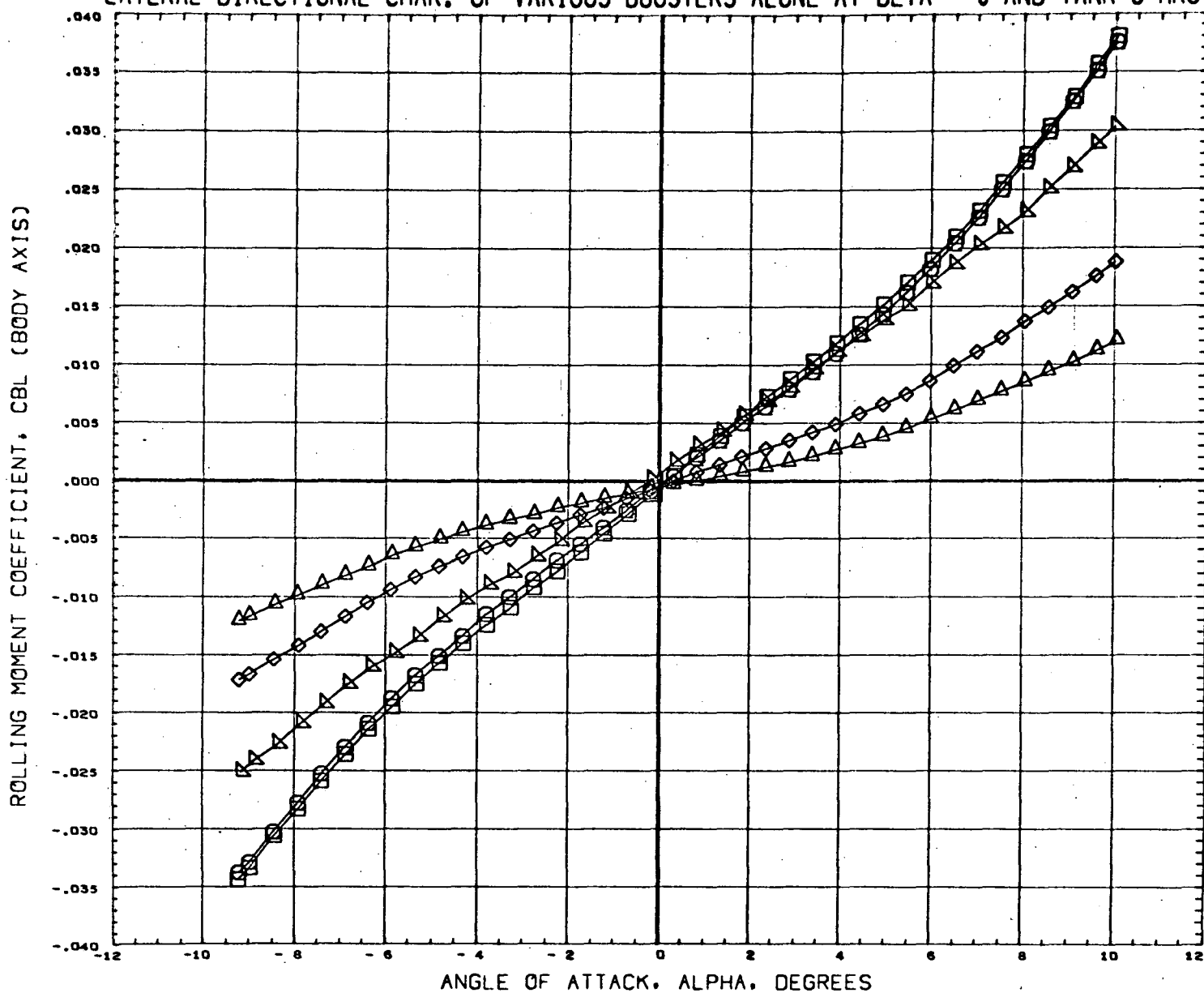
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(RD7881)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000
(RD7882)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000
(RD7883)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S	0.000
(RD7884)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000
(RD7885)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 404

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT BETA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD78B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD78B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD78B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD78B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD78B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

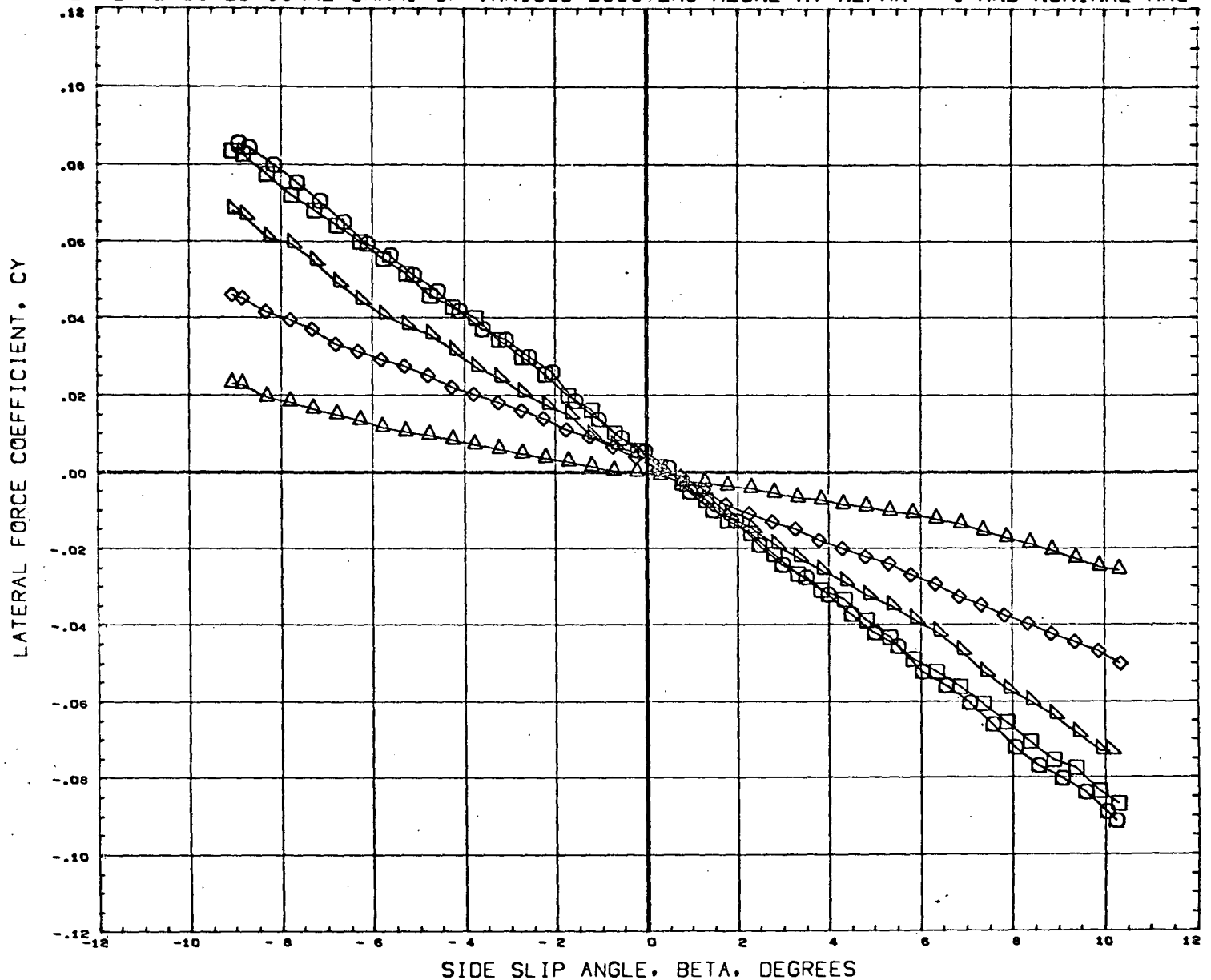
BETA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 405

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

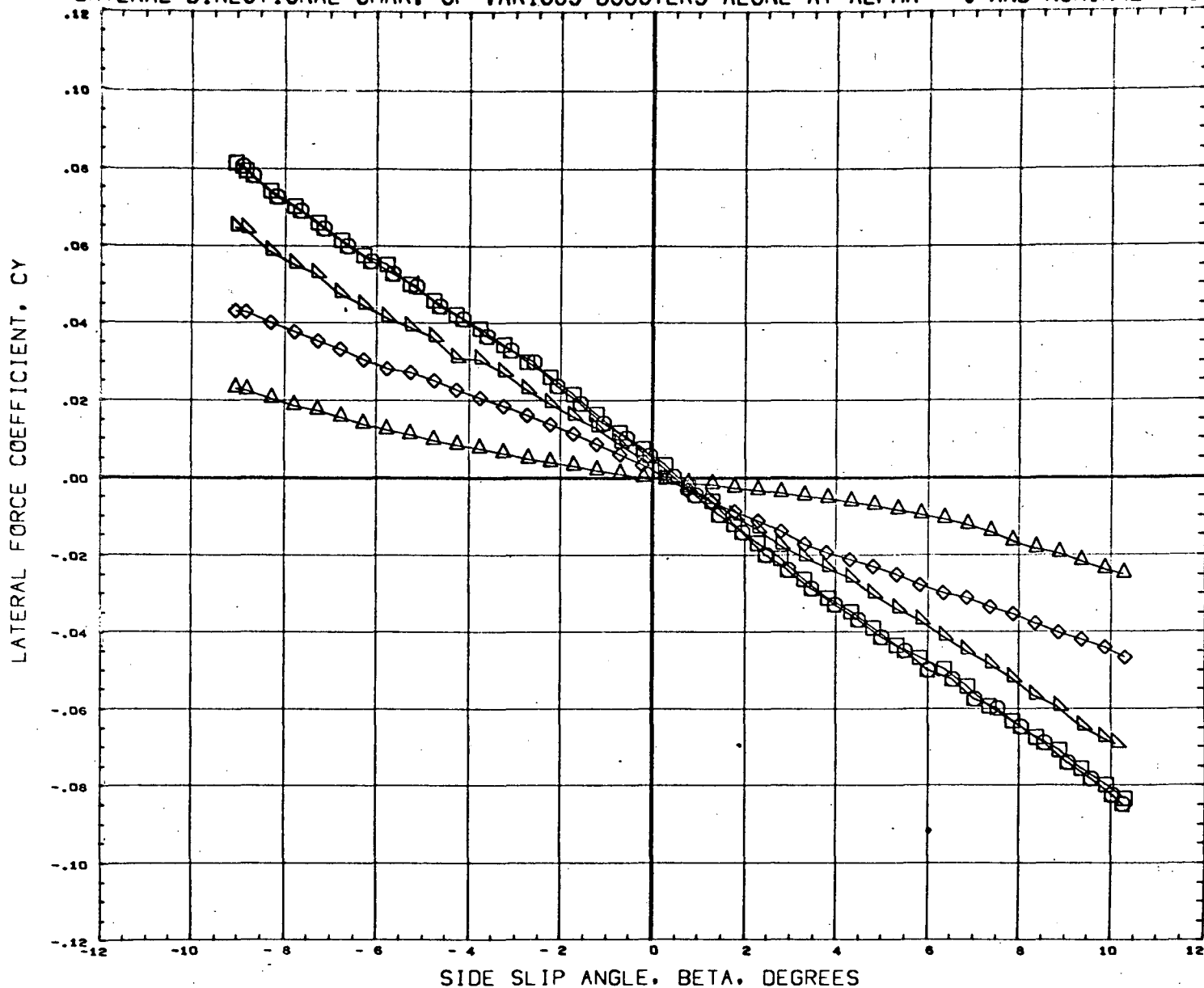
REFERENCE INFORMATION		
SREF	3155.3040	SO.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH

.89

PAGE 406

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

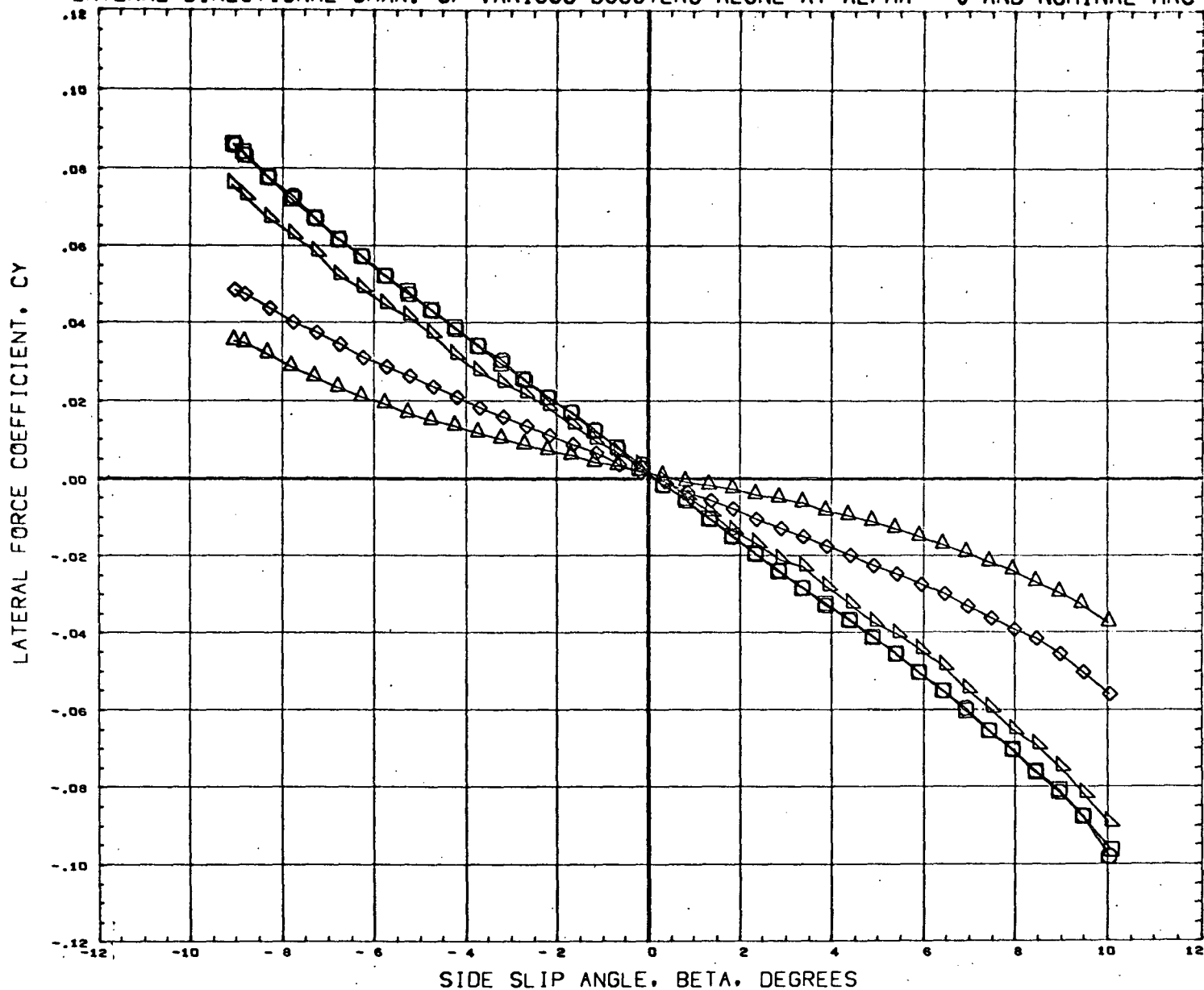


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION	
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1	0.000	SREF	3155.3040 SQ.FT.
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2	0.000	LREF	609.5004 IN.
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S	0.000	BREF	862.0004 IN.
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3	0.000	XMRP	731.0004 IN.
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4	0.000	YMRP	0.0000 IN.
			ZMRP	0.0000 IN.
			SCALE	0.0060

MACH 1.08

PAGE 407

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

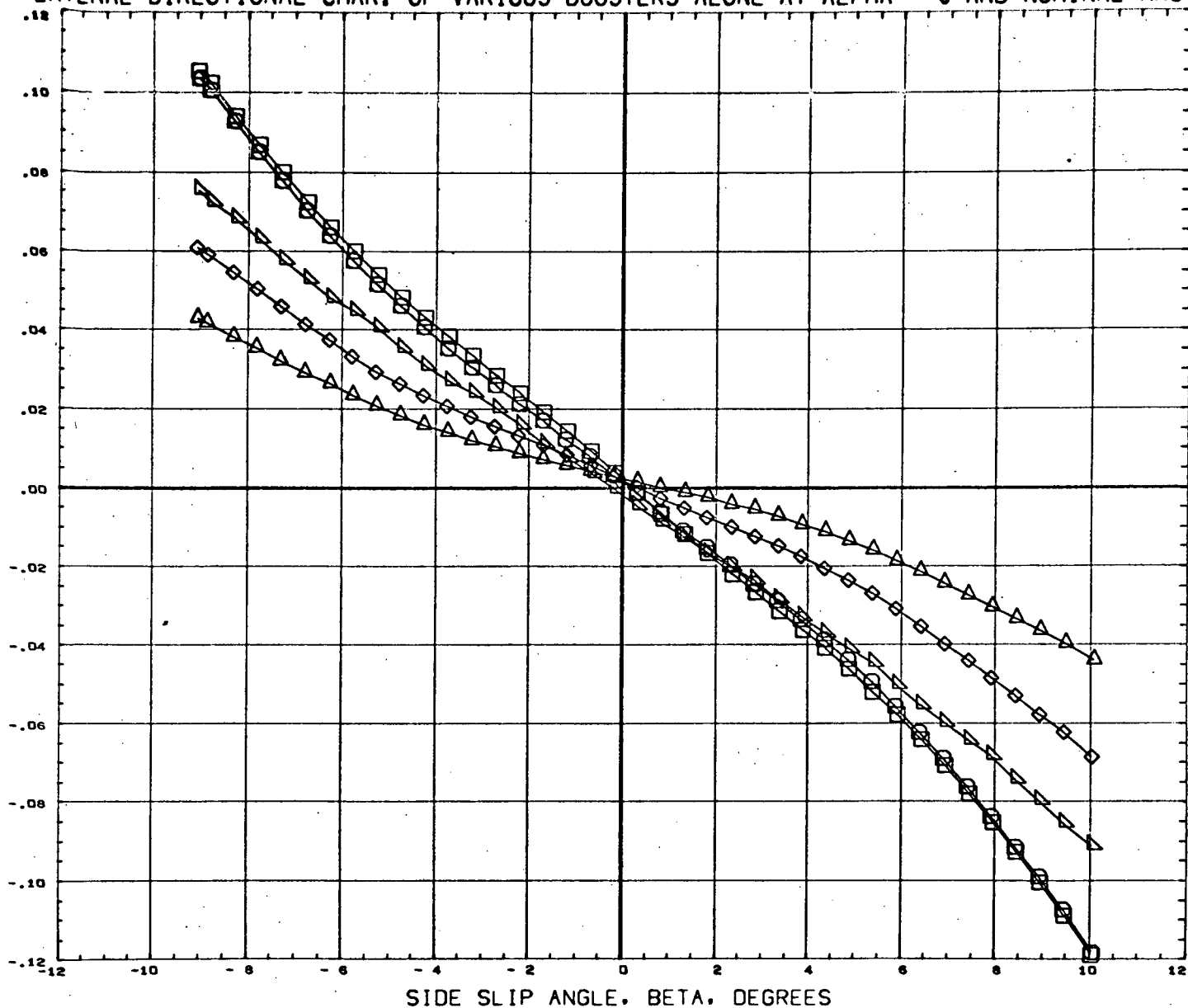
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 408

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

LATERAL FORCE COEFFICIENT, CY



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2s
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

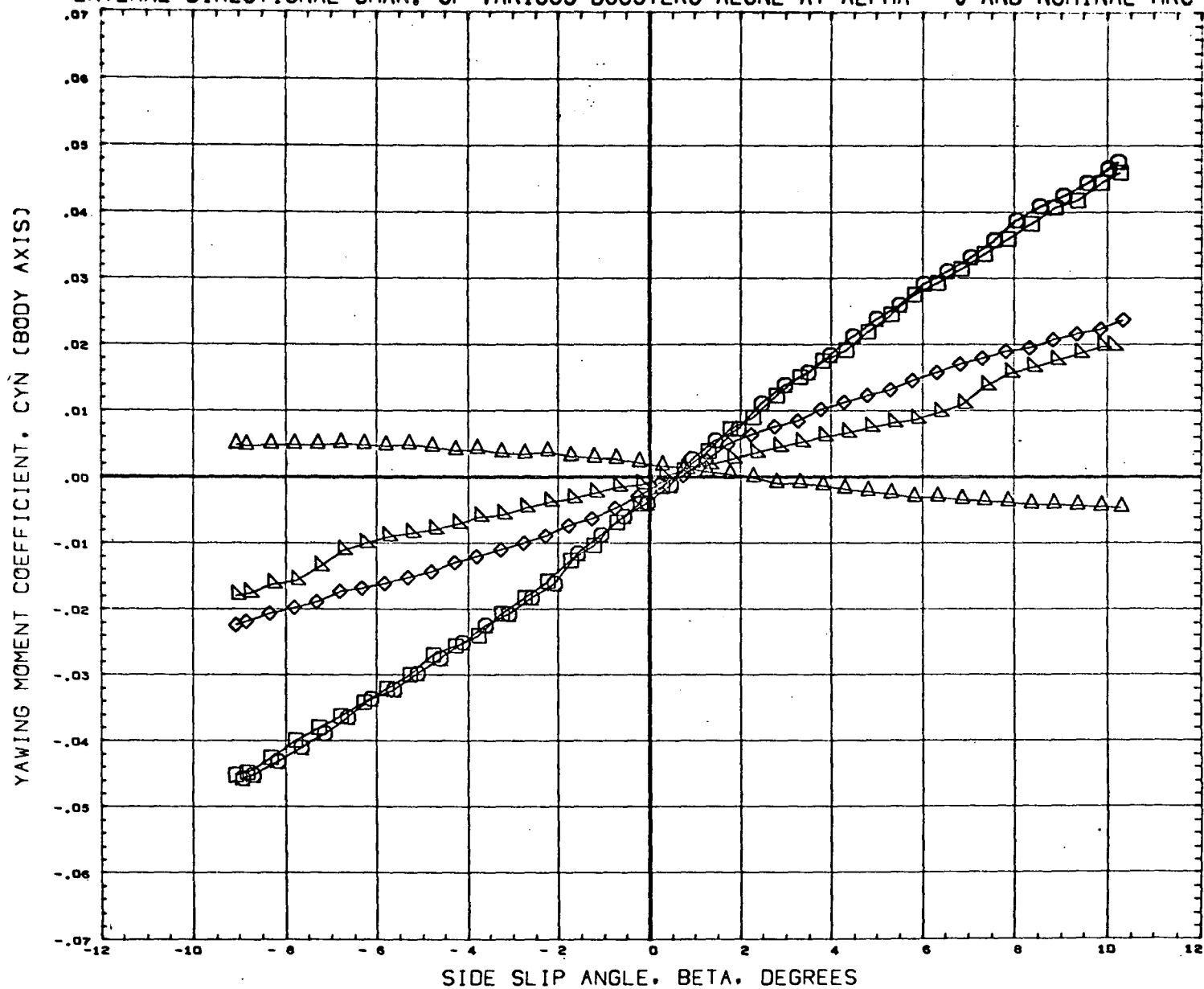
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRRP	731.0004	IN.
YMRRP	0.0000	IN.
ZMRRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 409

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

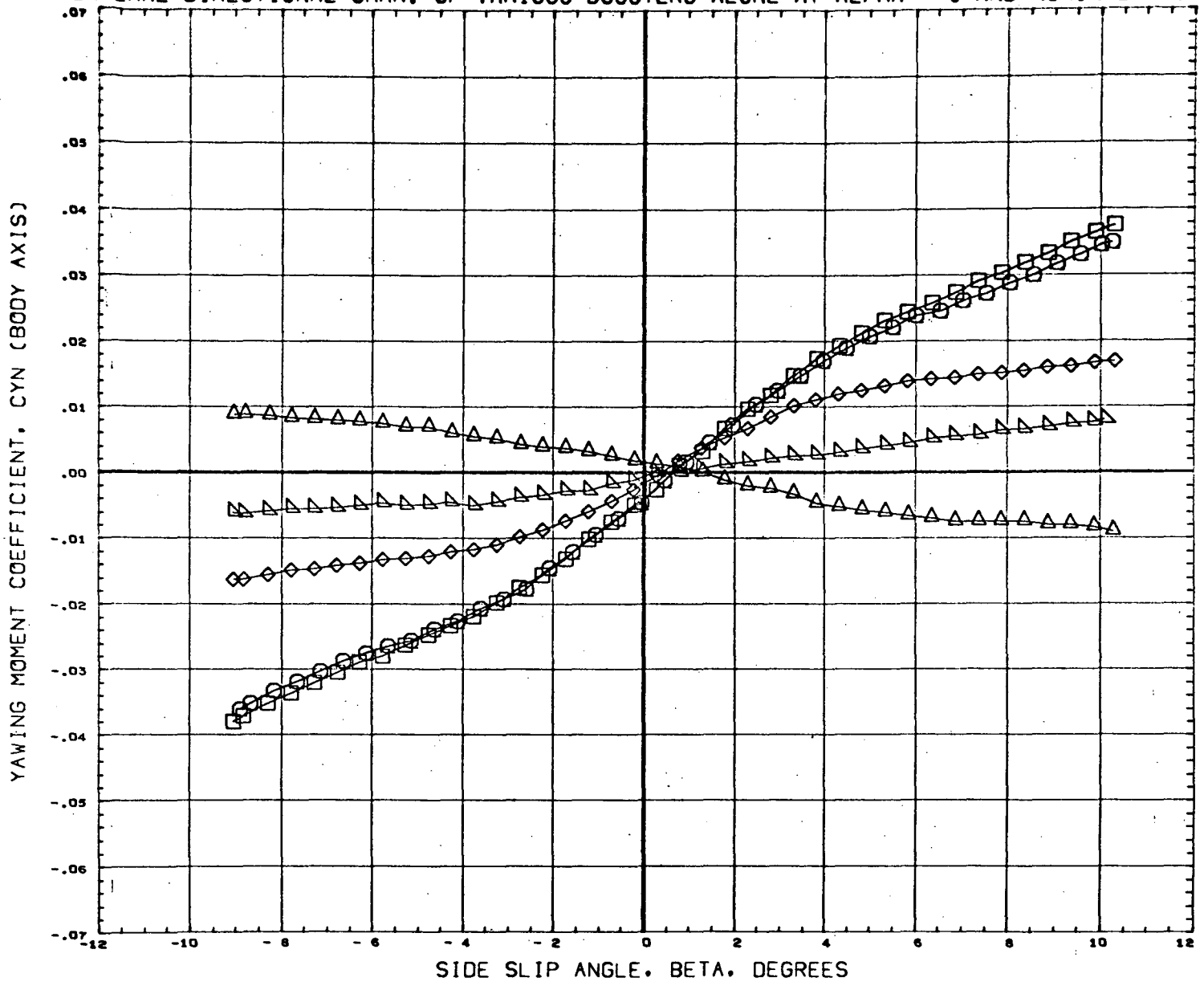
REFERENCE INFORMATION		
SREF	3153.3040	SQ. FT.
LREF	509.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH

.89

PAGE 410

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902) □	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905) ▽	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

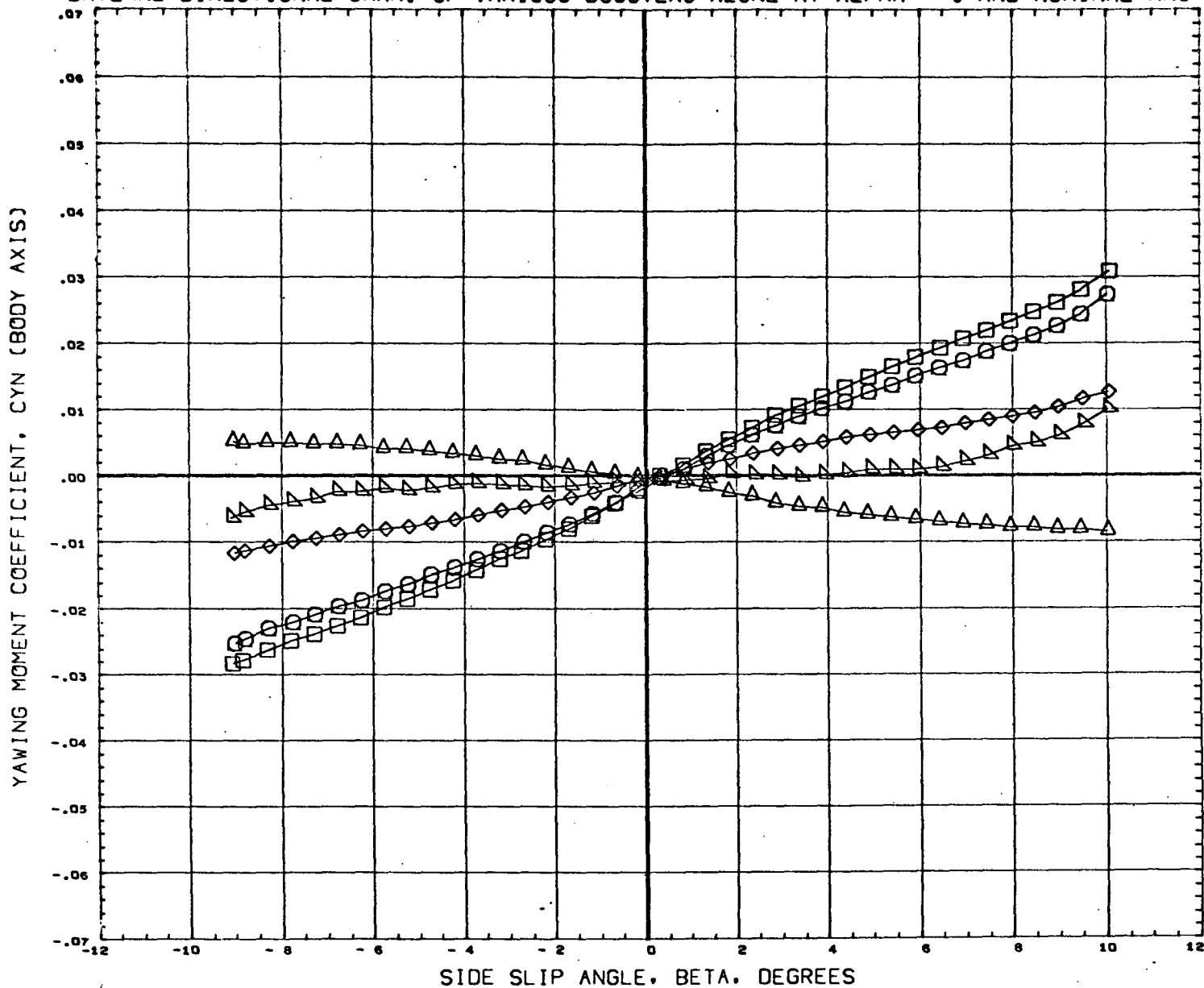
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 731.0004 IN.
YMRP 0.0000 IN.
ZMRP 0.0000 IN.
SCALE 0.0060

MACH 1.08

PAGE 411

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	□	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	△	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	◻	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

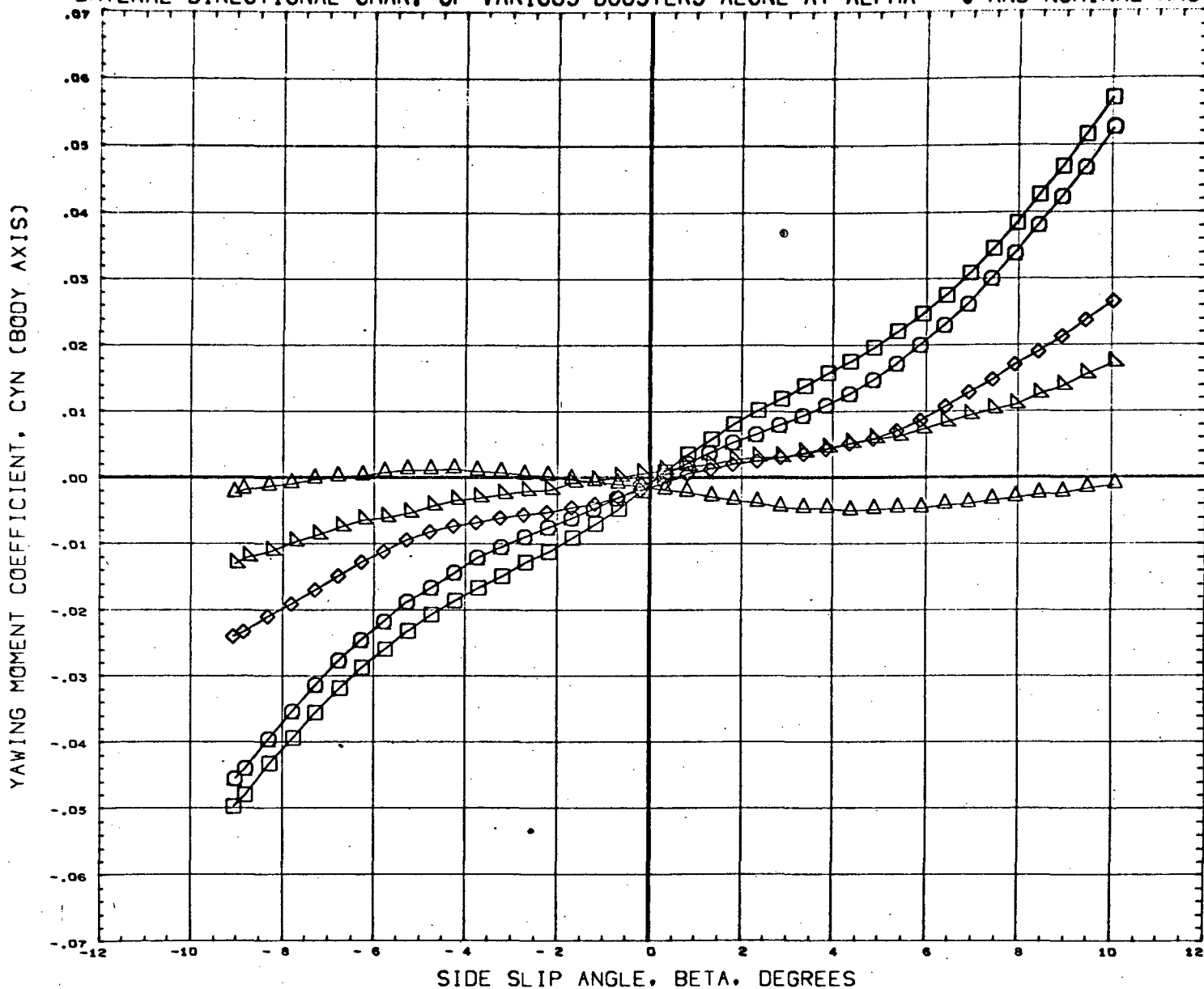
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 412

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901) \square	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902) \circ	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903) \diamond	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904) \triangle	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905) ∇	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

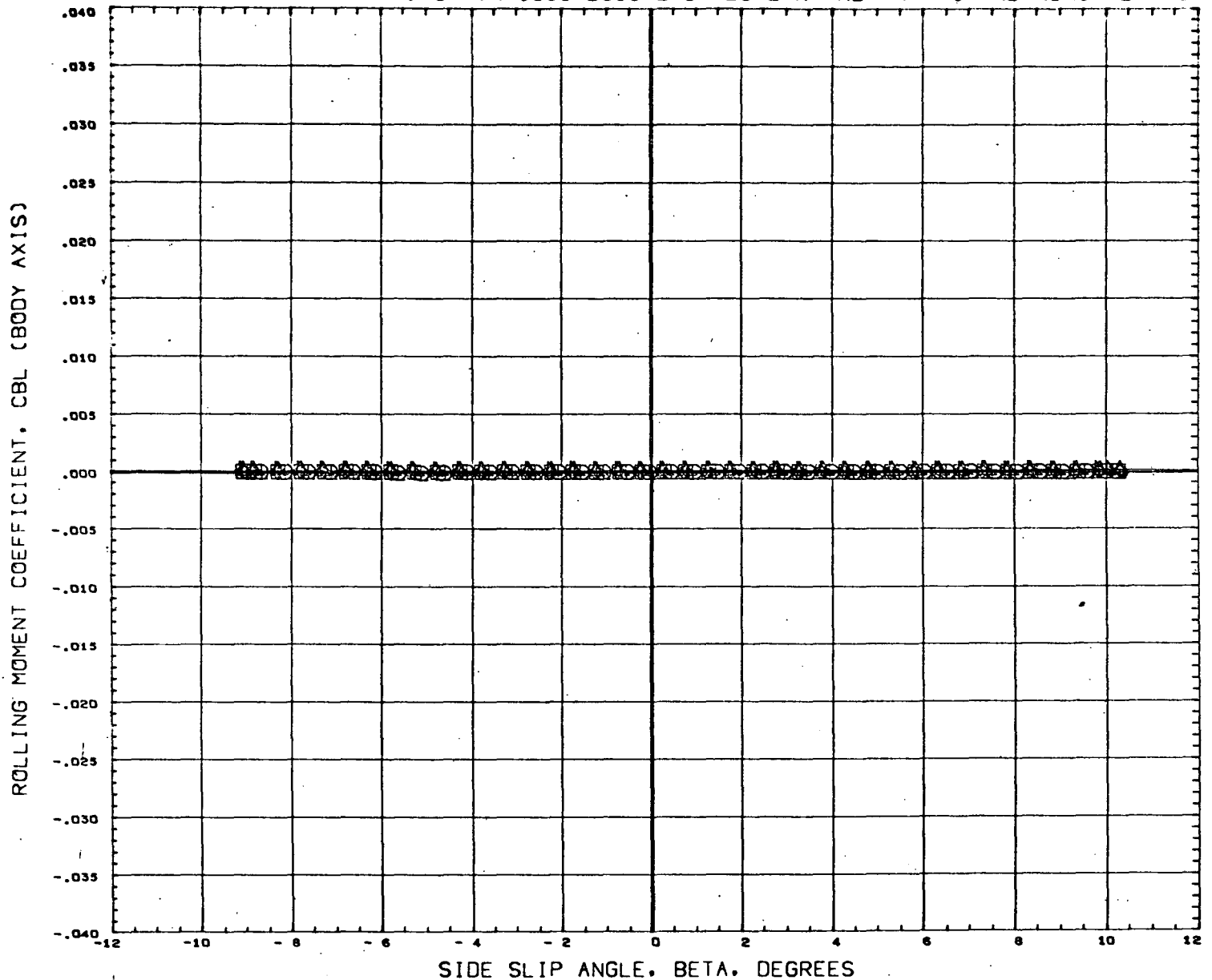
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 731.0004 IN.
YMRP 0.0000 IN.
ZMRP 0.0000 IN.
SCALE 0.0060

MACH 4.47

PAGE 413

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

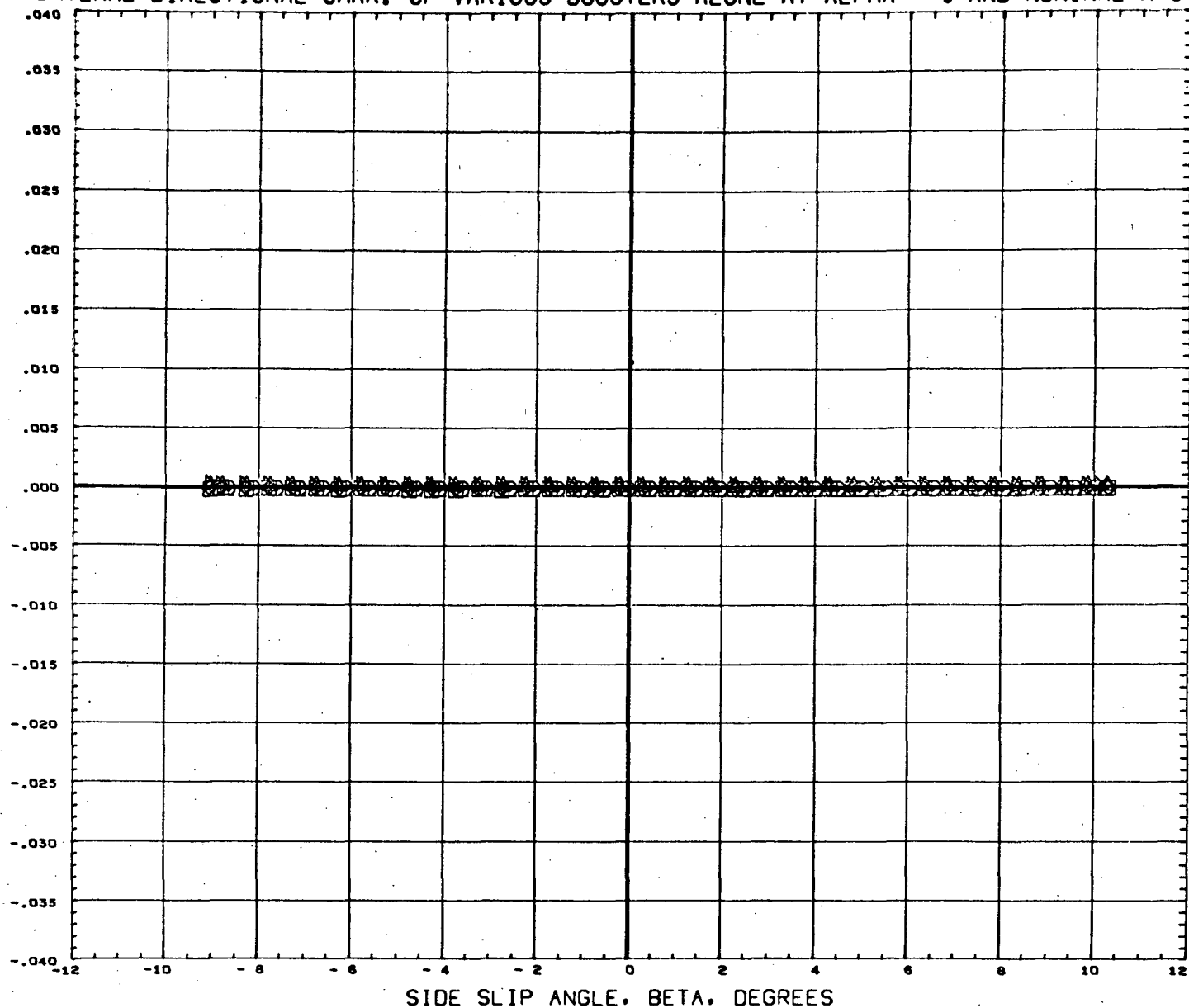
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	






MACH .89

PAGE 414

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901) 	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902) 	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903) 	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904) 	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905) 	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

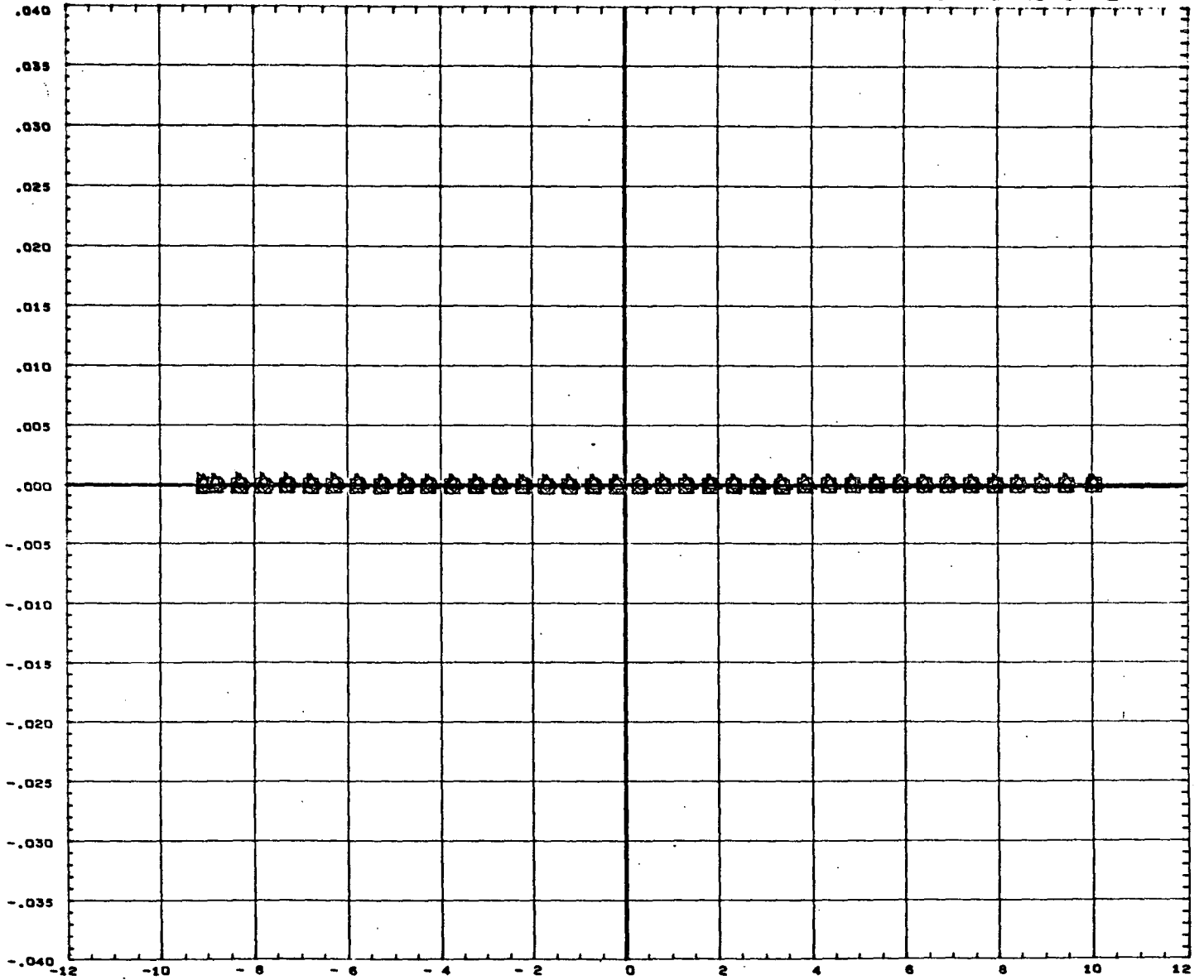
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 415

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

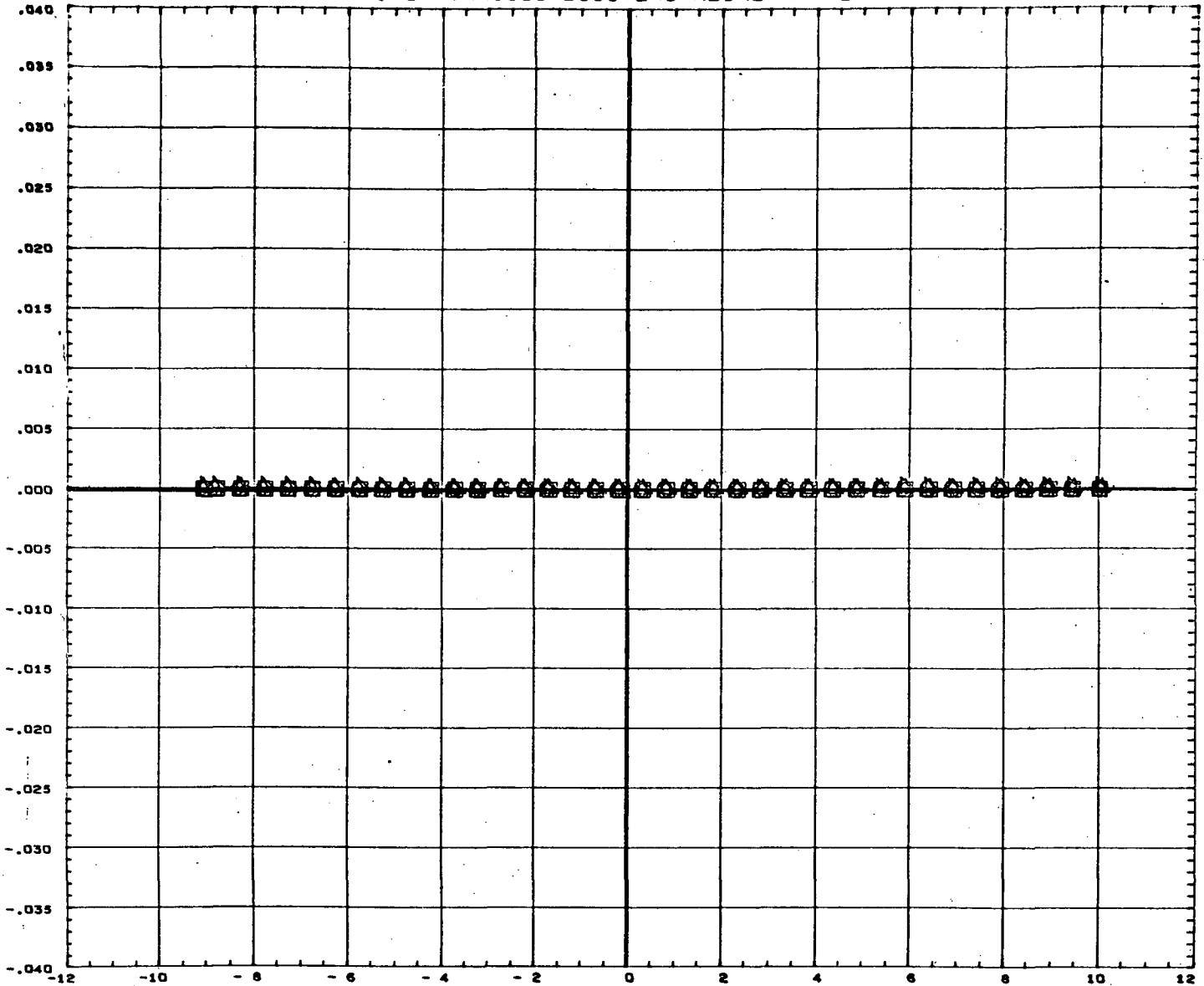
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 416

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

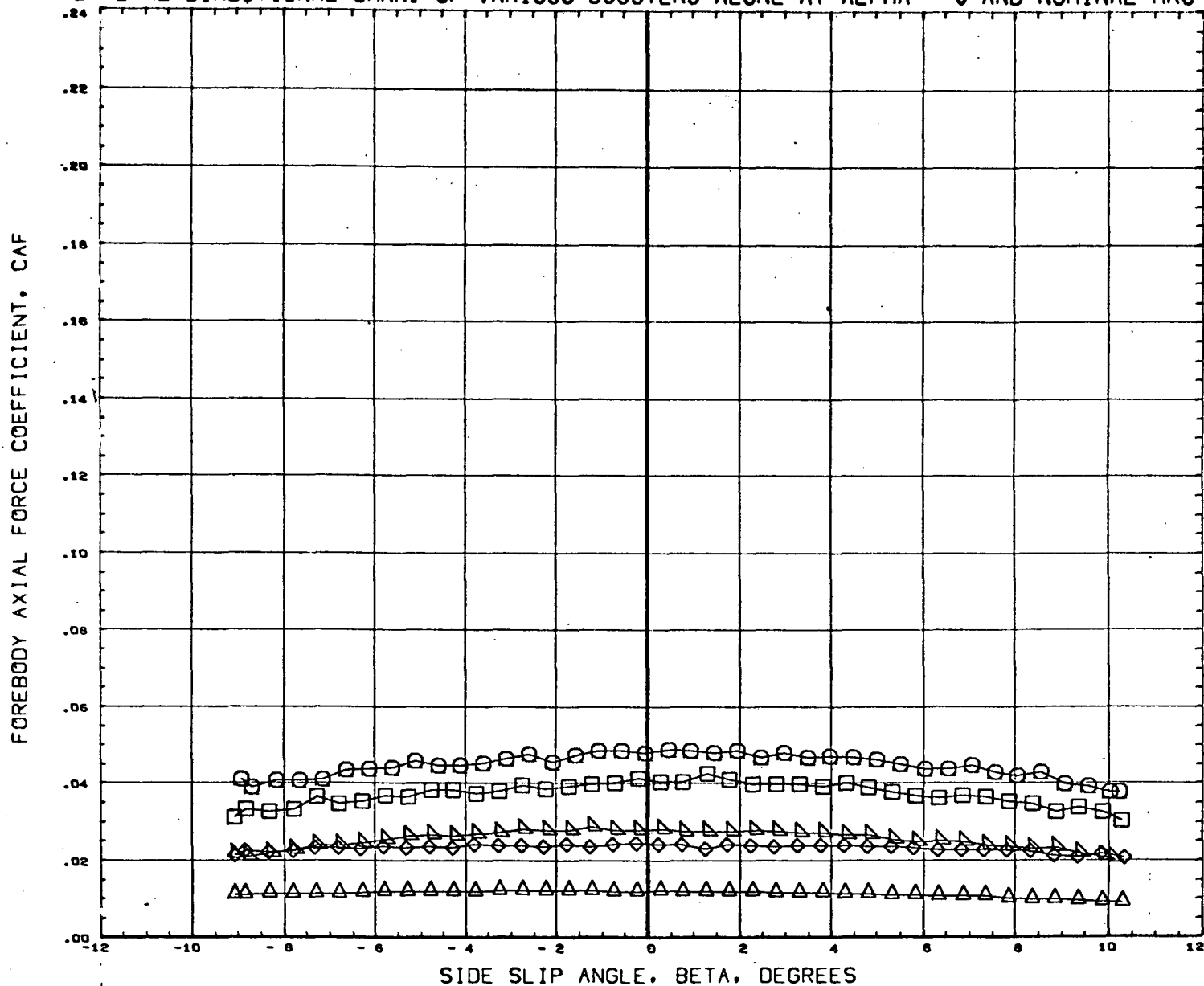
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 4.47

PAGE 417

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	□	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	△	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	▽	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

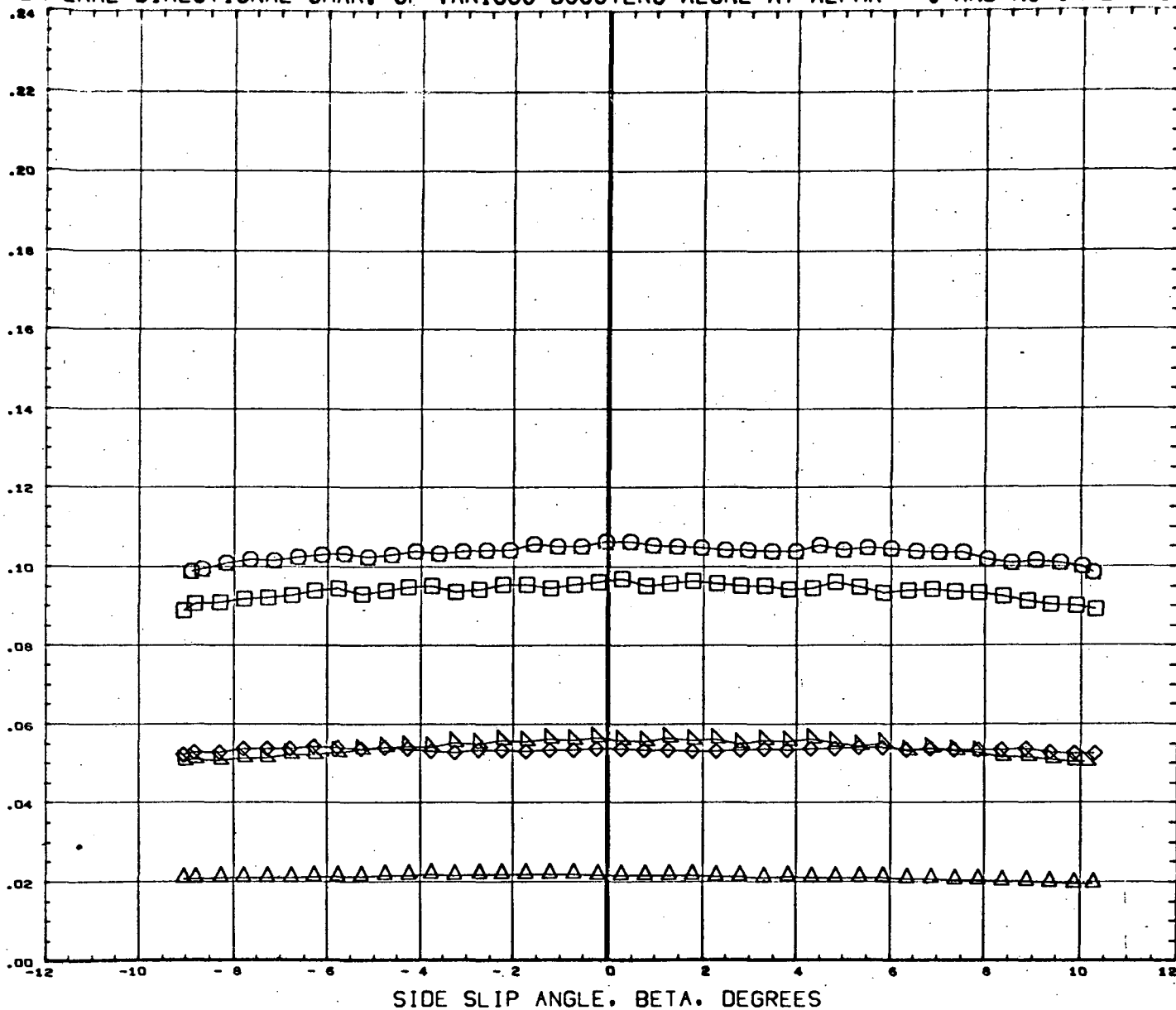
REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH .89

PAGE 418

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

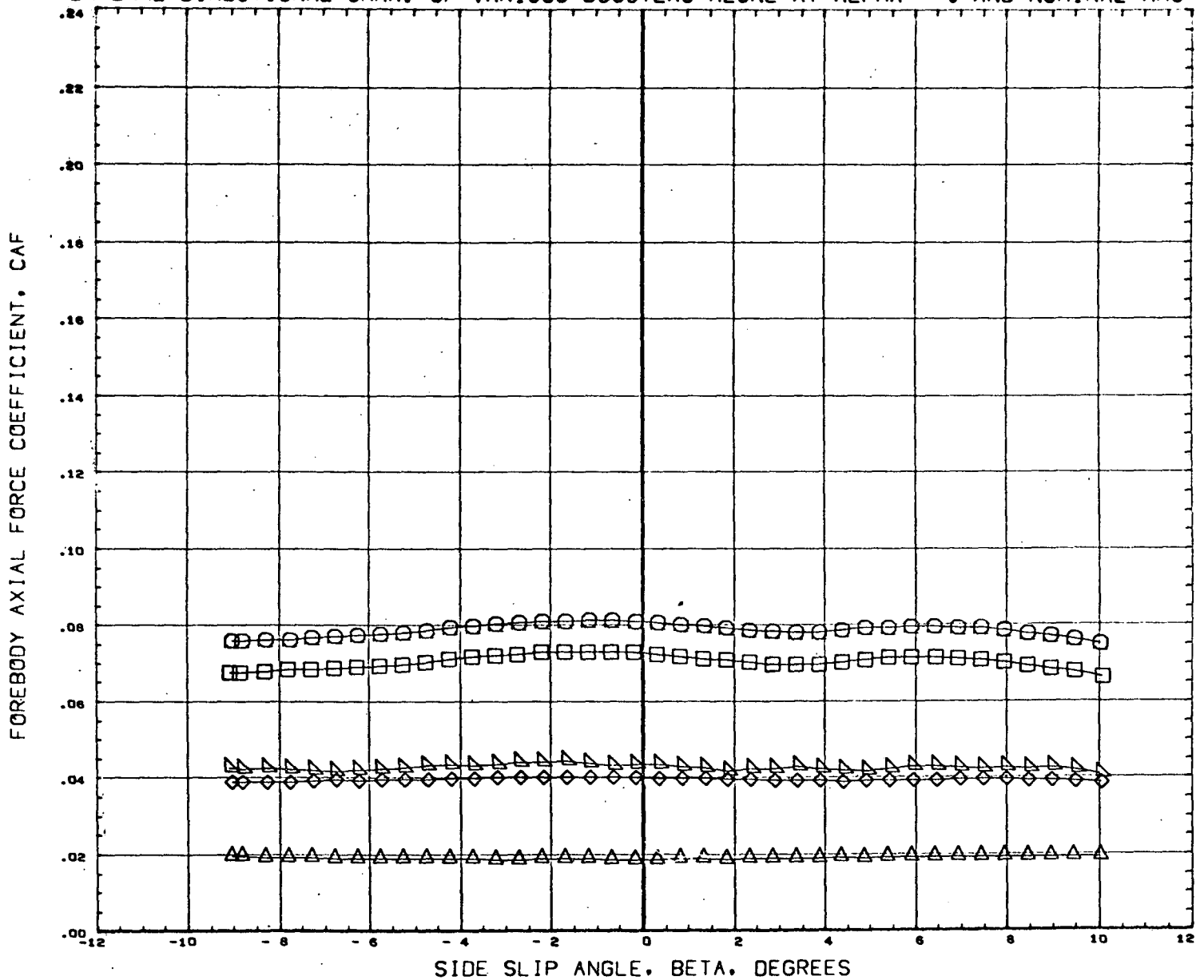
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 1.08

PAGE 419

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE(NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE(NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE(NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE(NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE(NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

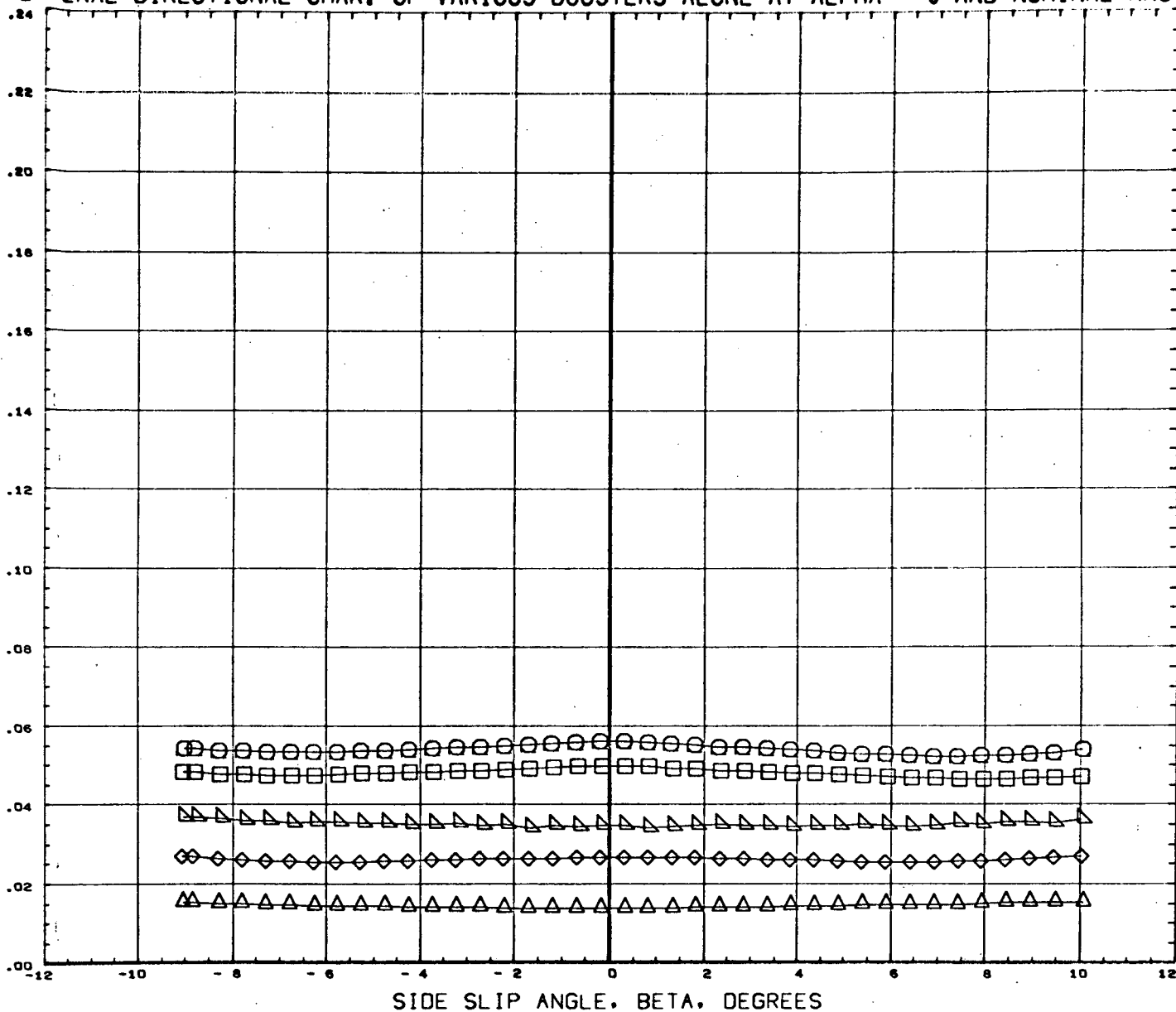
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	

MACH 2.20

PAGE 420

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND NOMINAL MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7901)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1
(RD7902)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2
(RD7903)	MDAC S-222 BOOSTER ALONE (NOM. CG) B2S
(RD7904)	MDAC S-222 BOOSTER ALONE (NOM. CG) B3
(RD7905)	MDAC S-222 BOOSTER ALONE (NOM. CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

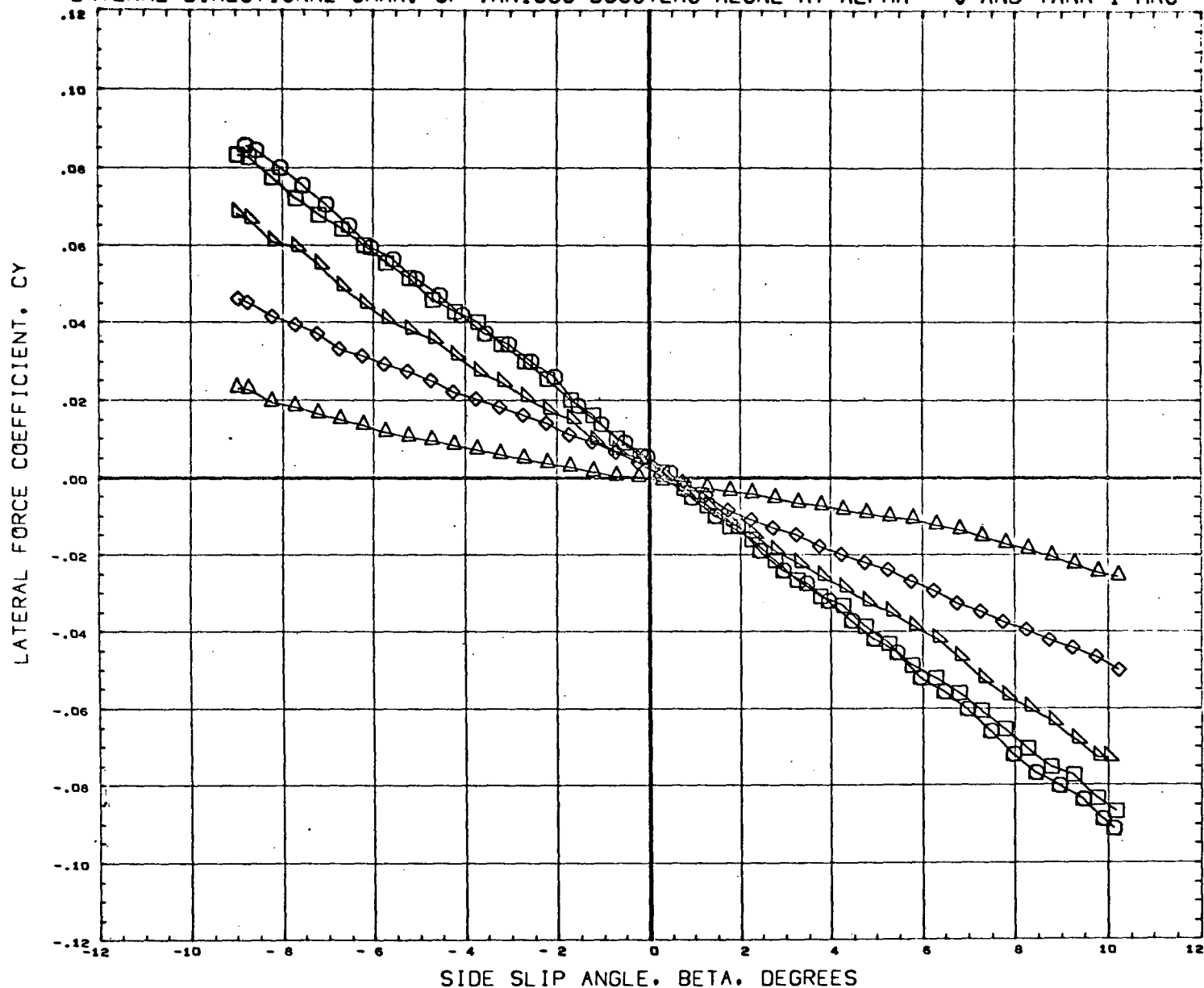
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 731.0004 IN.
YMRP 0.0000 IN.
ZMRP 0.0000 IN.
SCALE 0.0060

MACH

4.47

PAGE 421

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG)	B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG)	B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG)	B4

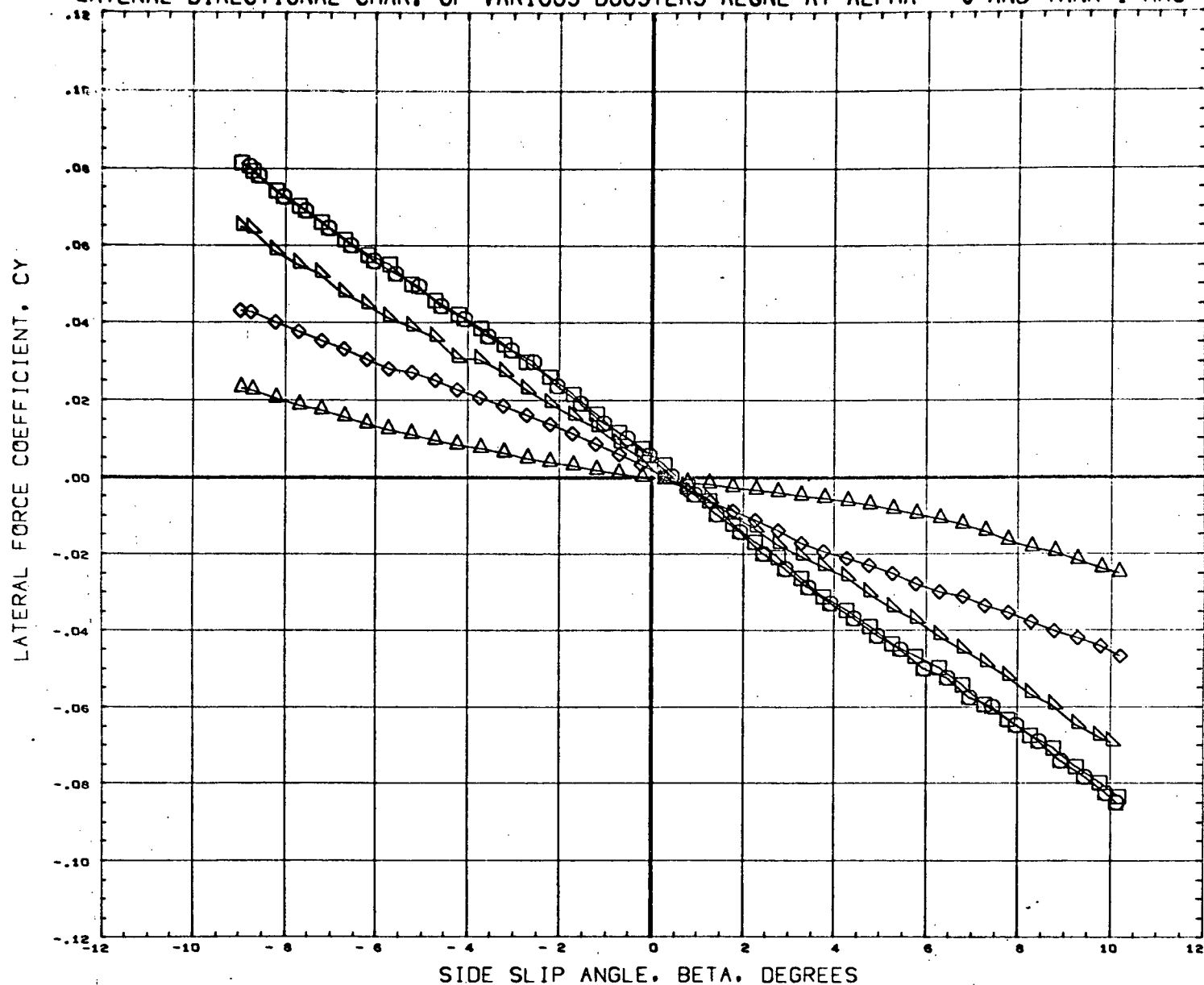
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 422

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

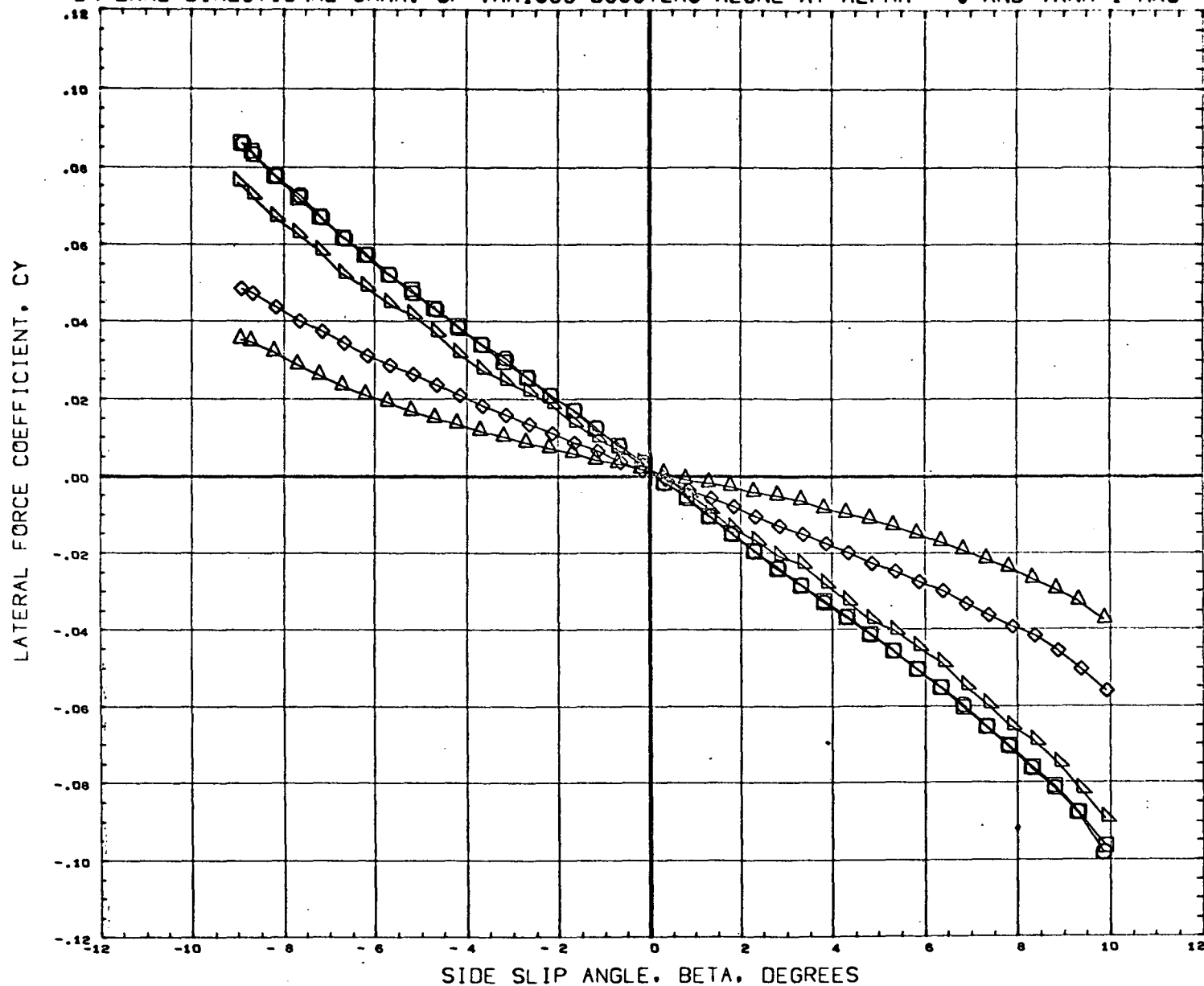
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 1.08

PAGE 423

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

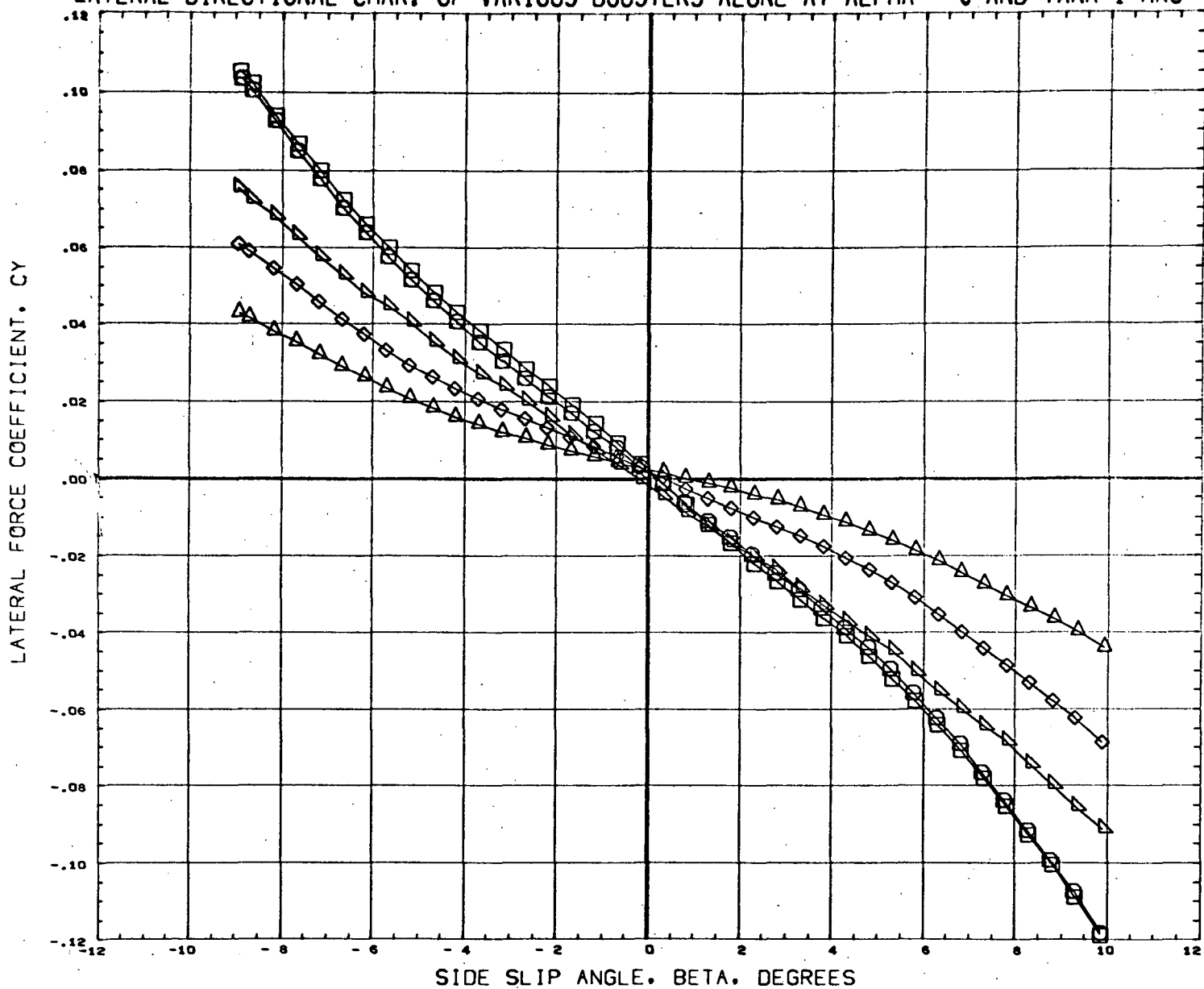
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH

2.20

PAGE 424

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

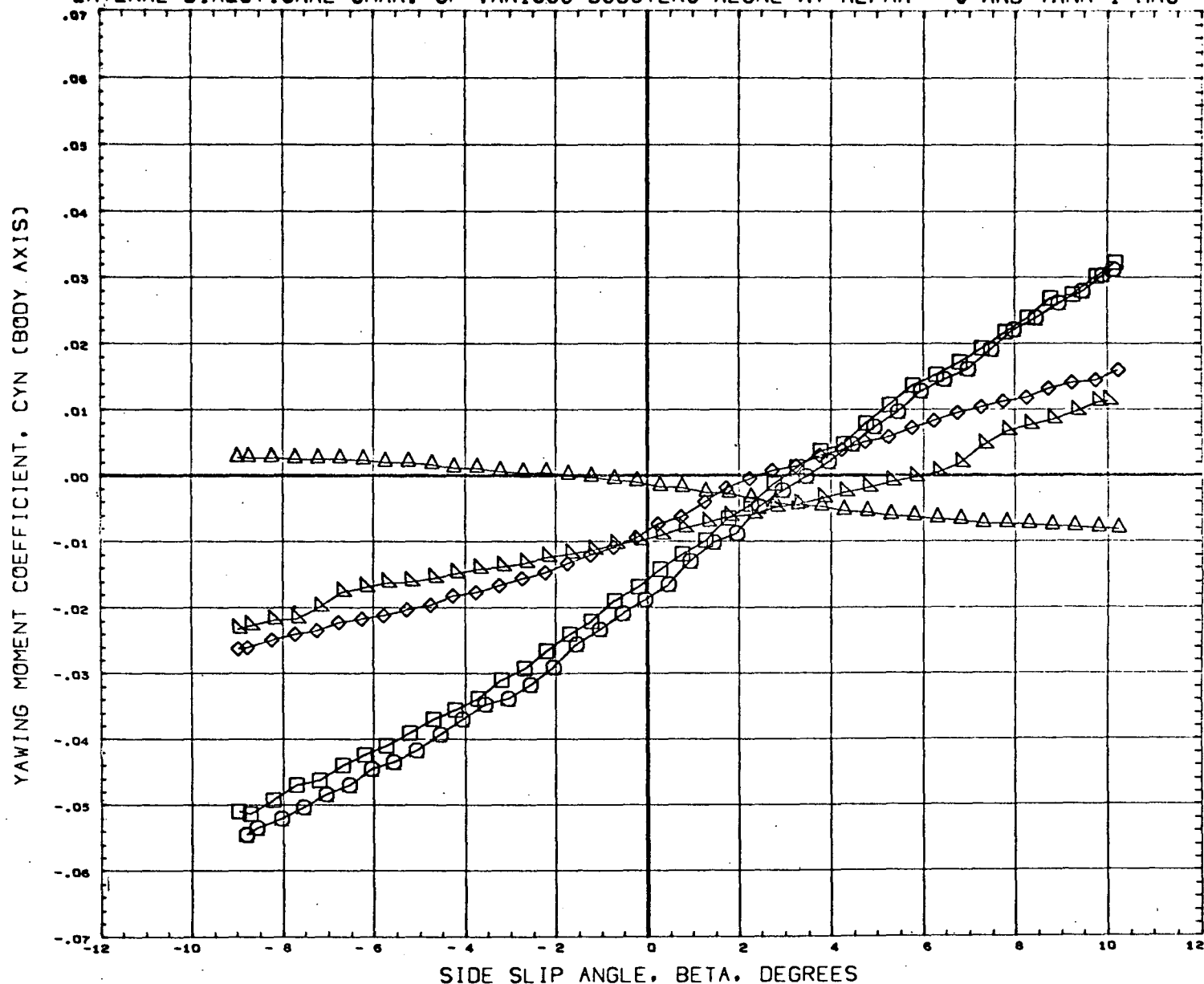
REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	557.0004 IN.
YMRP	277.3004 IN.
ZMRP	200.0004 IN.
SCALE	0.0060

MACH

4.47

PAGE . 425

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	○	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	△	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	◇	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	□	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	×	MDAC S-222 BOOSTER ALONE (T1-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

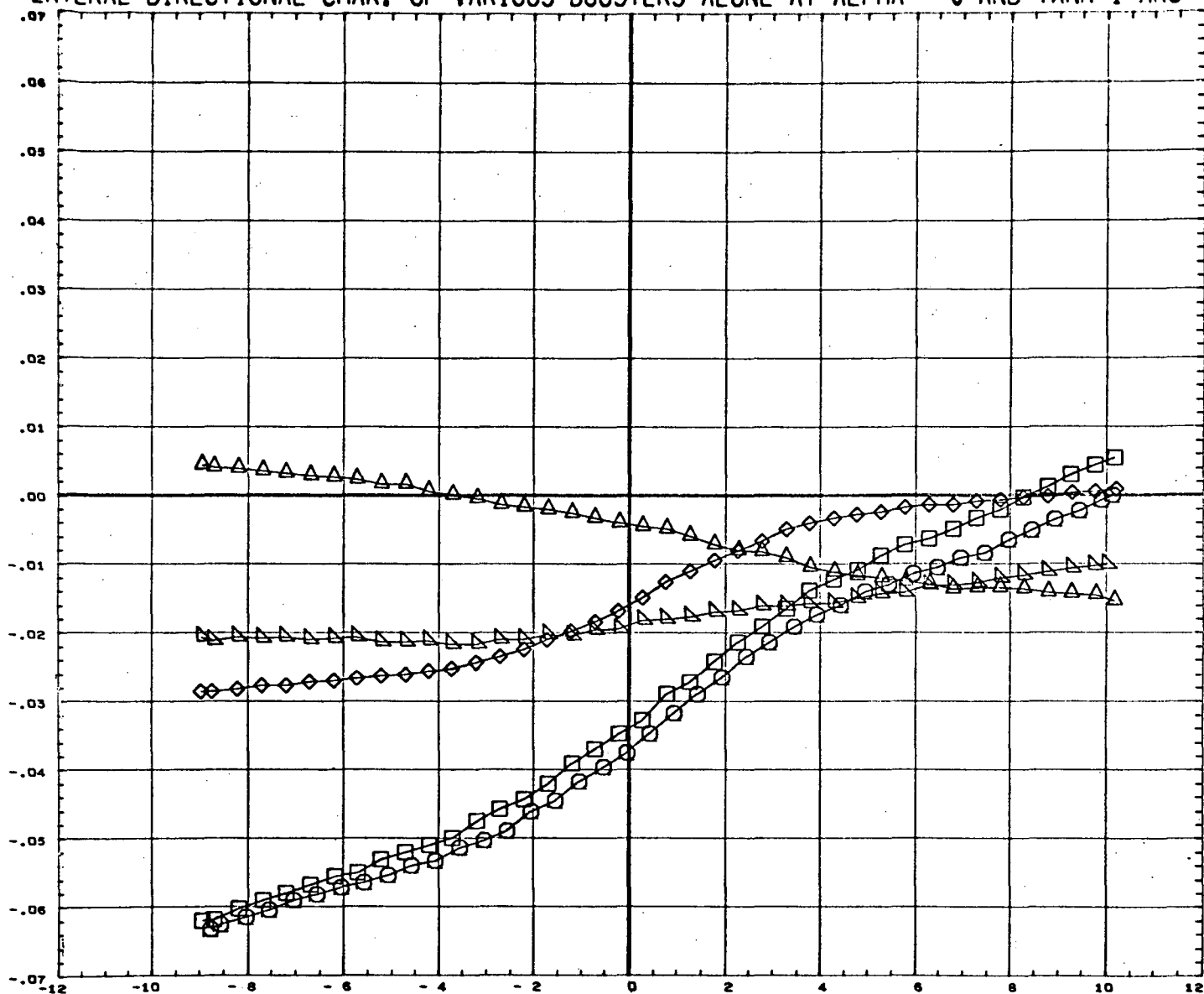
MACH

.89

PAGE 426

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	○	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	◇	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	△	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	□	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	×	MDAC S-222 BOOSTER ALONE (T1-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

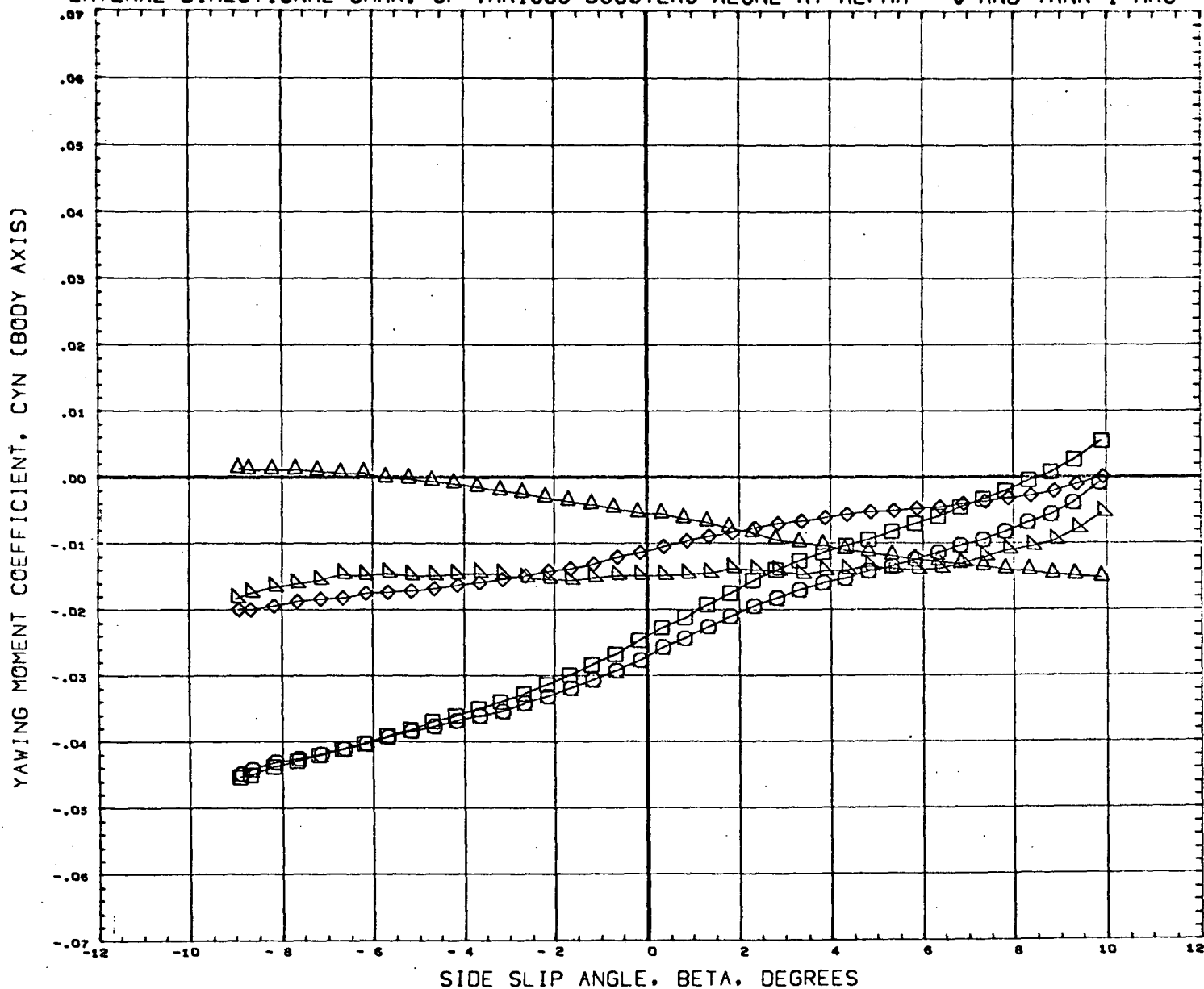
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH

1.08

PAGE 427

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(RD79A1)	NDAC S-222 BOOSTER ALONE (T1-CG) B1	
(RD79A2)	NDAC S-222 BOOSTER ALONE (T1-CG) B2	
(RD79A3)	NDAC S-222 BOOSTER ALONE (T1-CG) B2S	
(RD79A4)	NDAC S-222 BOOSTER ALONE (T1-CG) B3	
(RD79A5)	NDAC S-222 BOOSTER ALONE (T1-CG) B4	

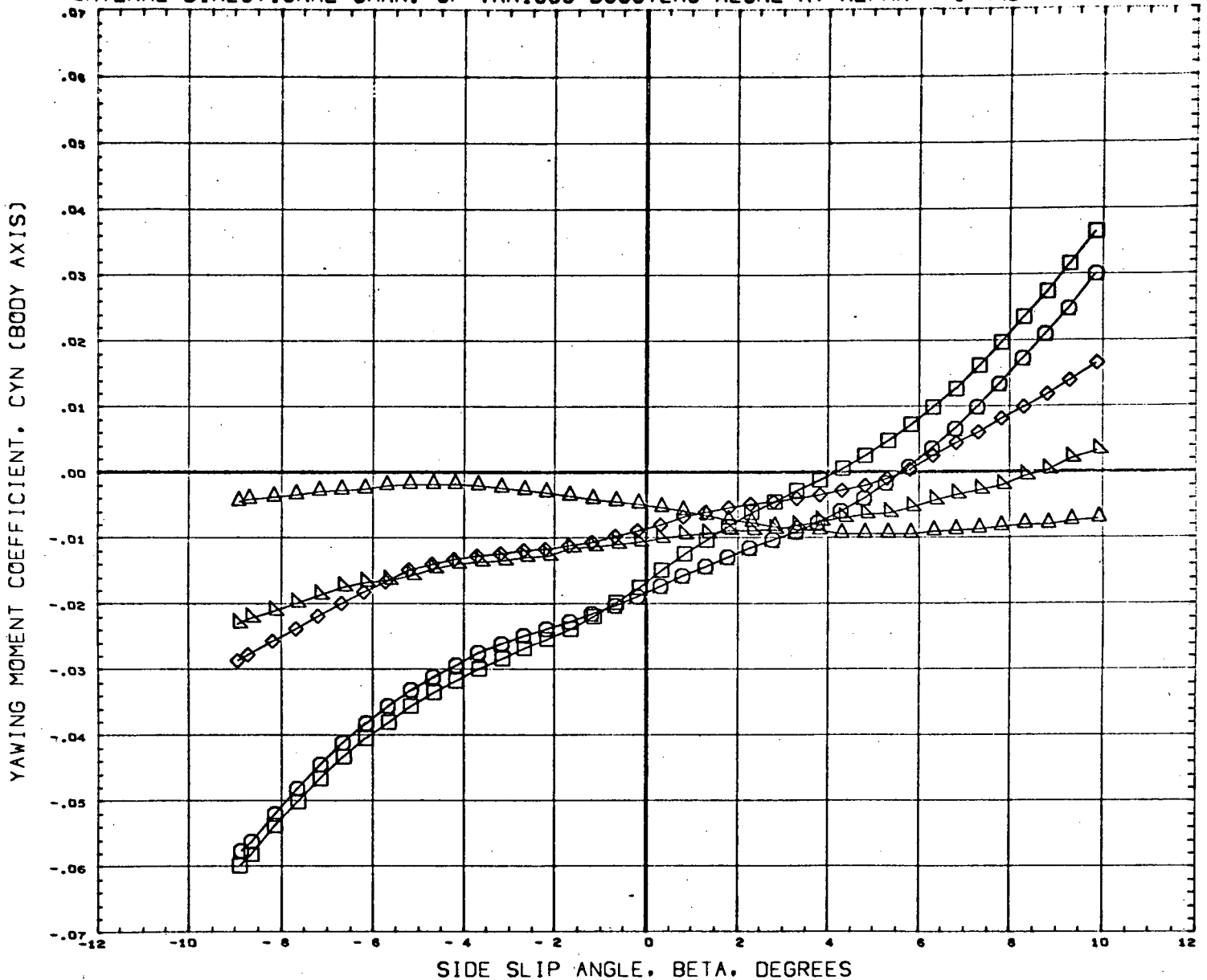
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 428

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG)	B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG)	B3
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG)	B4
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG)	B5

ALPHA
0.000
0.000
0.000
0.000
0.000

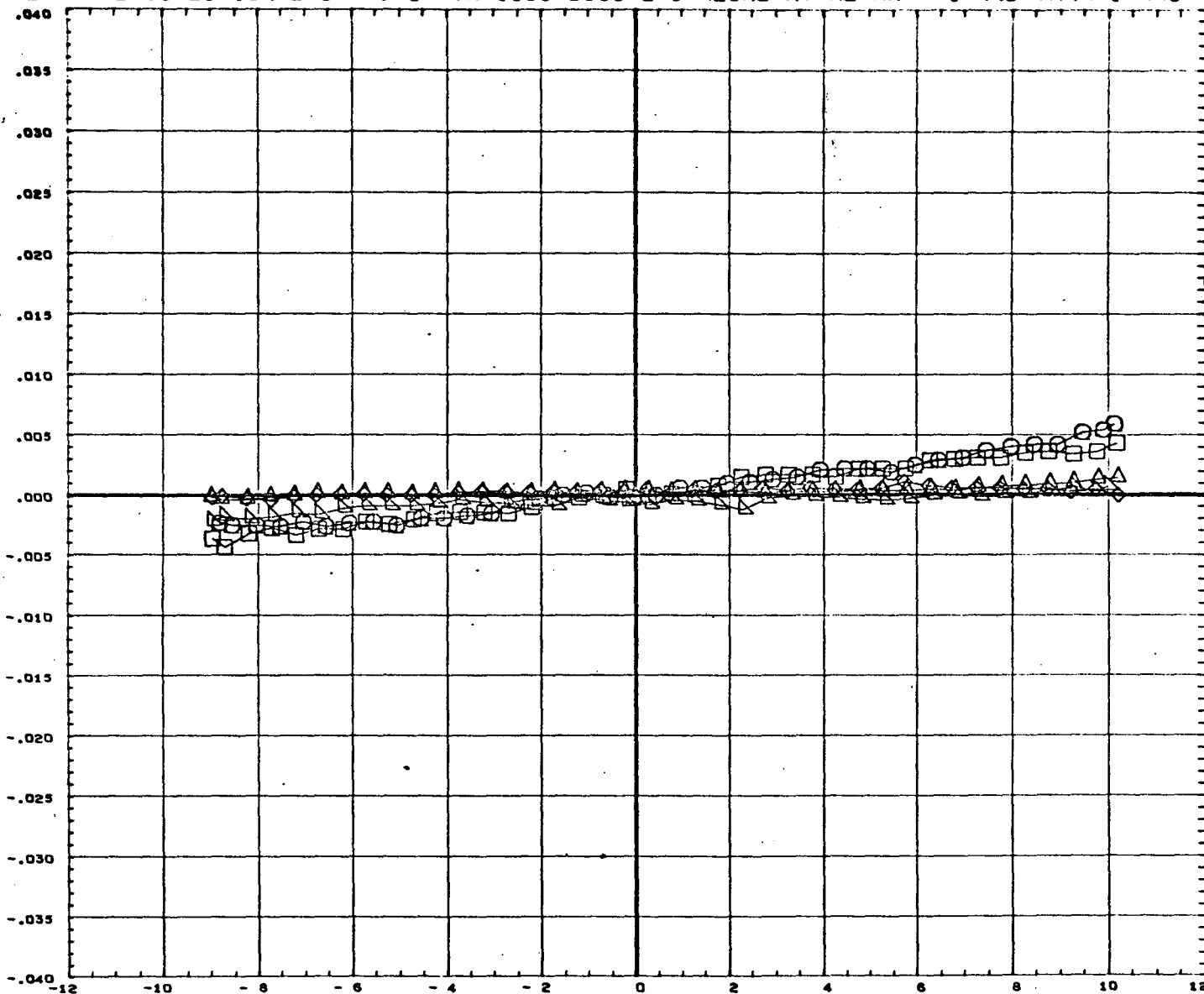
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 429

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



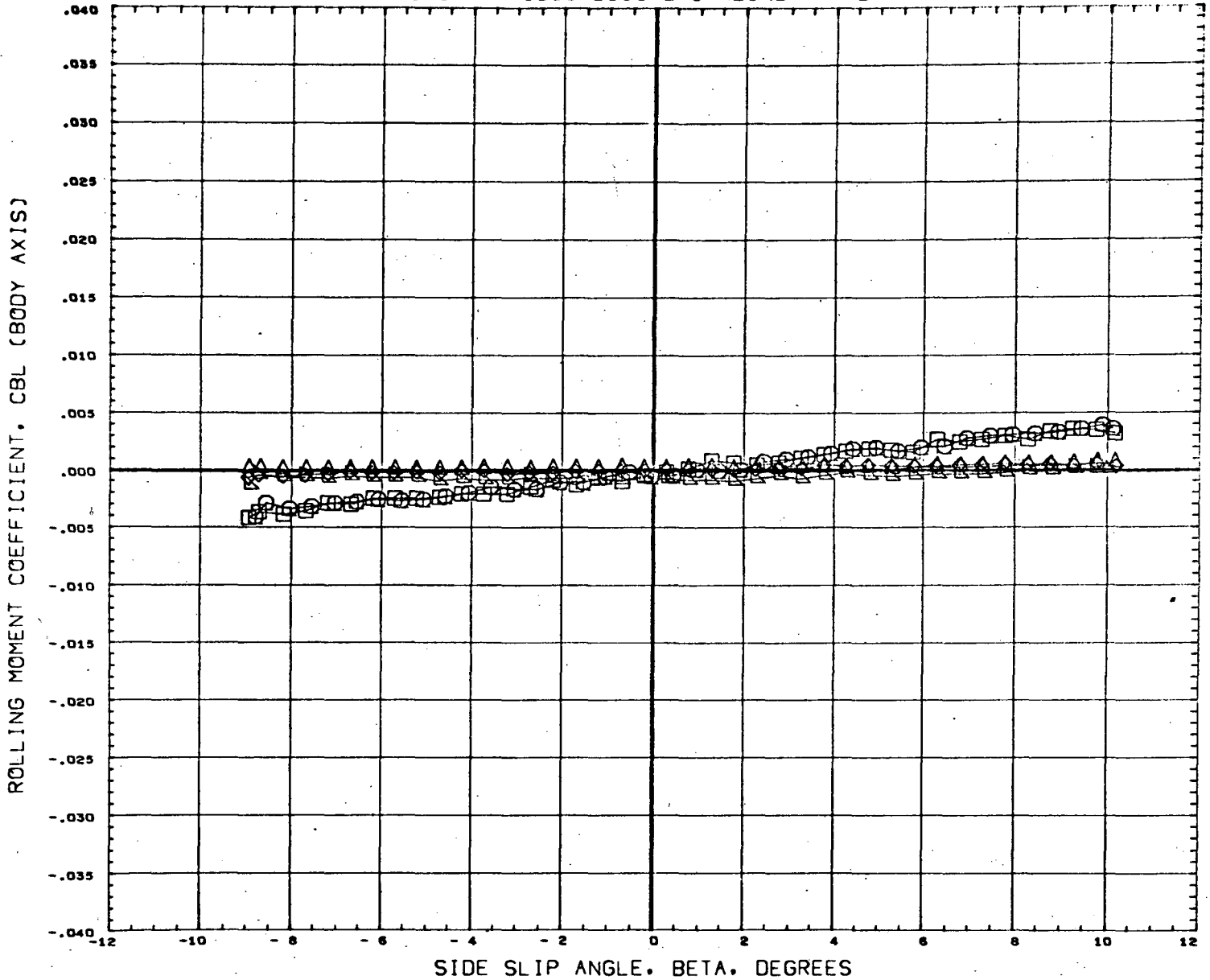
SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000	LREF 609.5004 IN.
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000	BREF 882.0004 IN.
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000	XMRP 557.0004 IN.
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000	YMRP 277.3004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH .89

PAGE 430

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(R079A1)	□	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(R079A2)	○	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(R079A3)	◇	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(R079A4)	△	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(R079A5)	▽	MDAC S-222 BOOSTER ALONE (T1-CG) B4

ALPHA

0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

SREF	3155.3040	sq.ft.
LREF	609.5004	in.
BREF	882.0004	in.
YMRP	557.0004	in.
ZMRP	277.3004	in.
ZMRP	200.0004	in.
SCALE	0.0060	

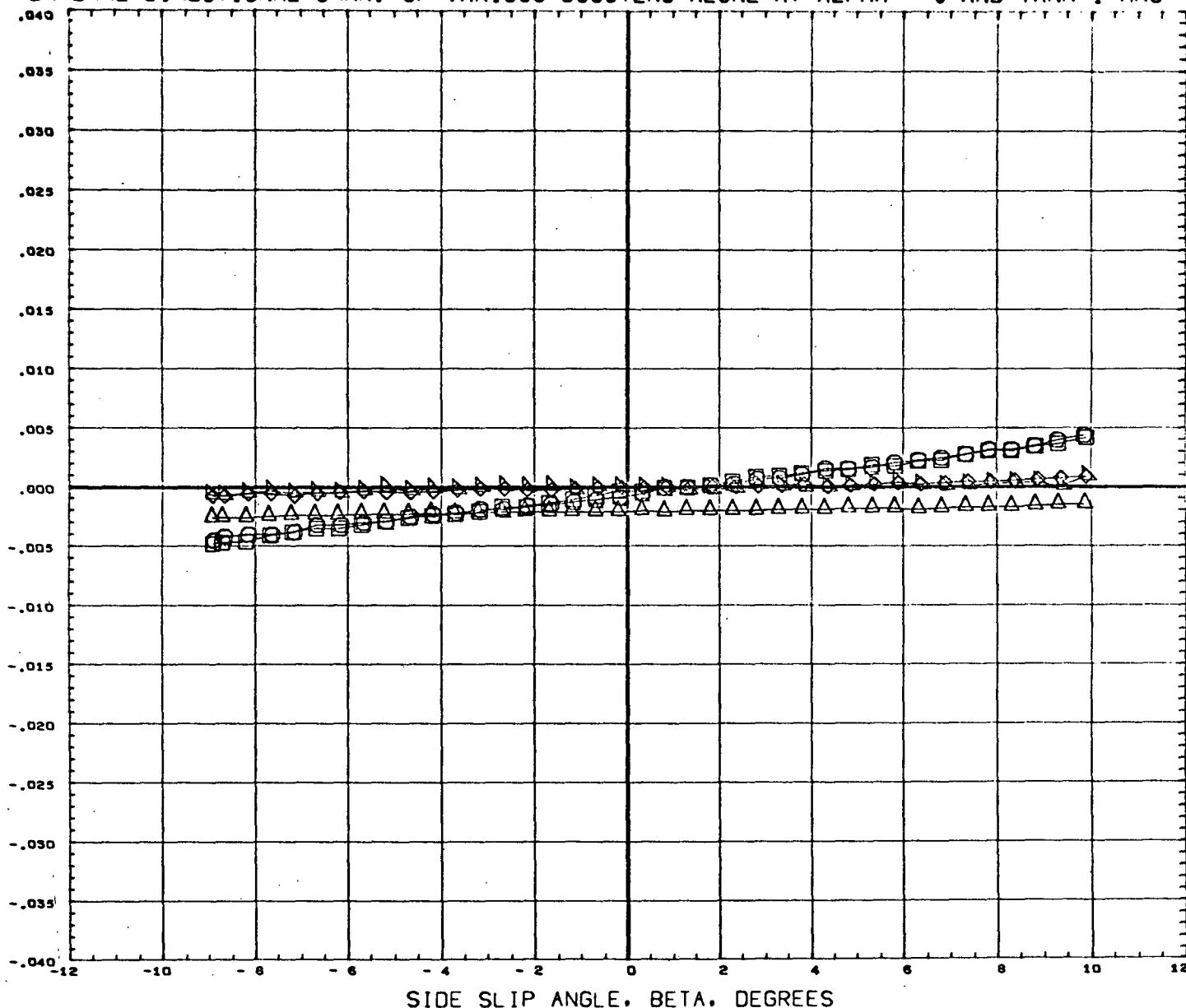
MACH

1.08

PAGE 431

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

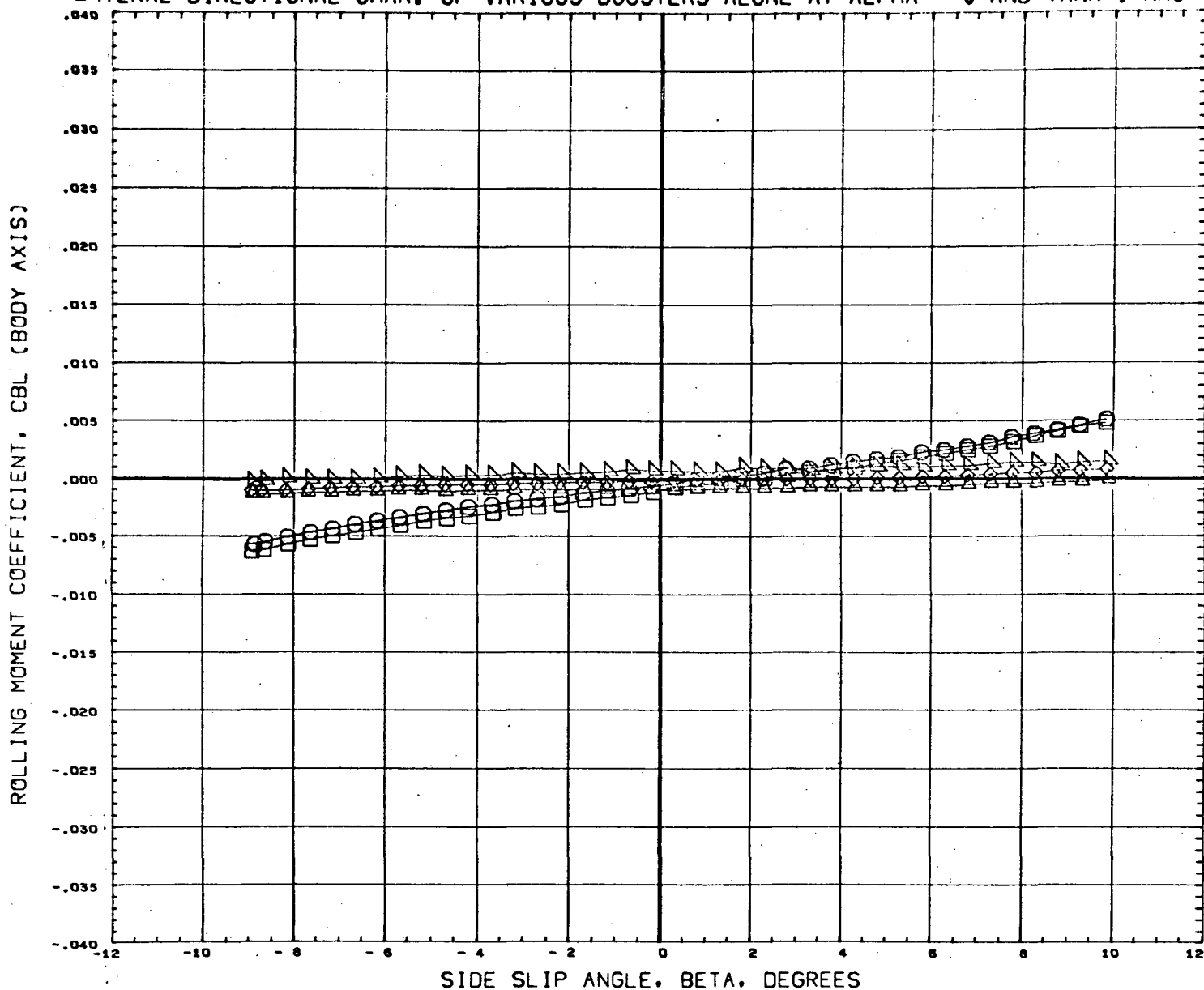
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 432

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC

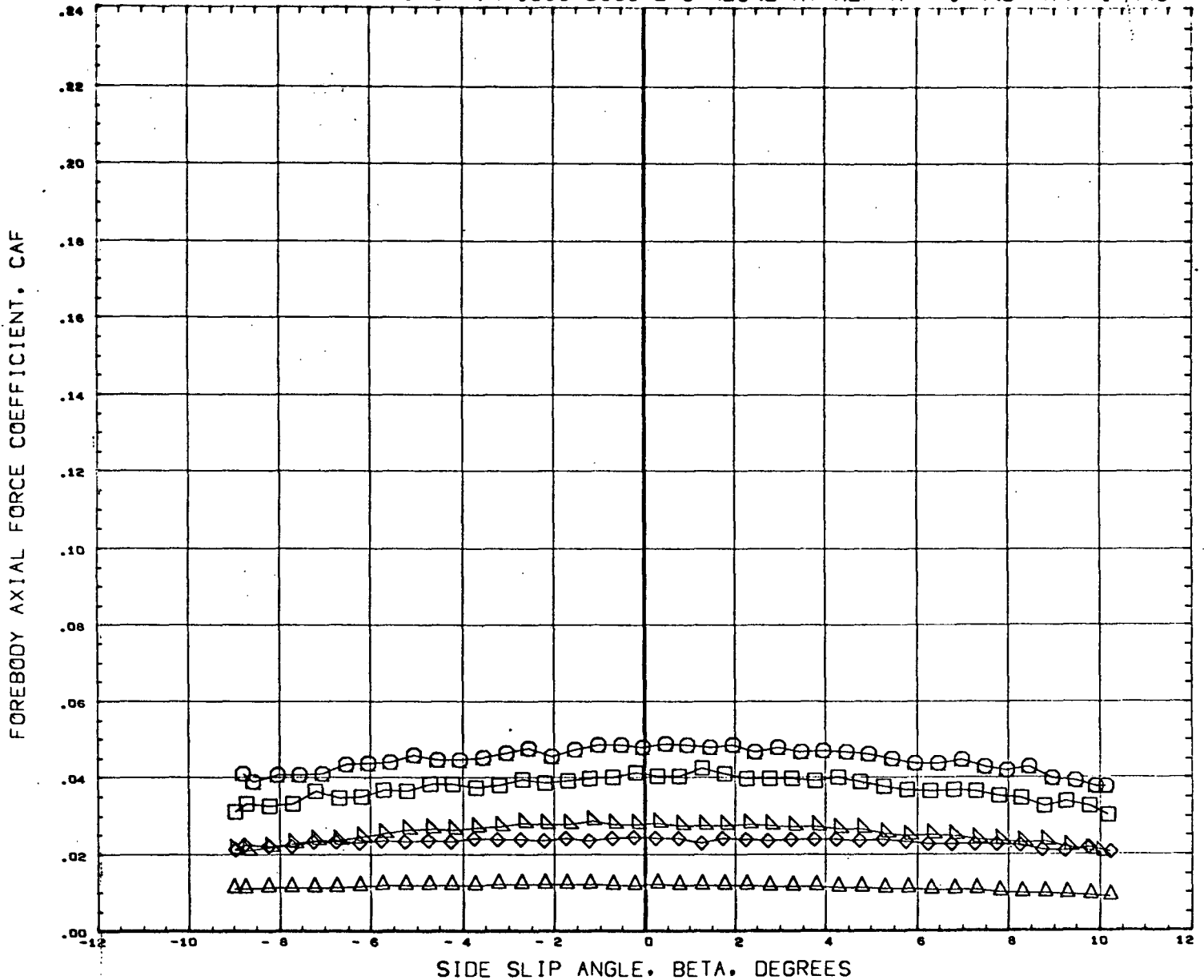


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1	0.000	SREF 3155.3040 SQ.FT.
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2	0.000	LREF 609.5004 IN.
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S	0.000	BREF 882.0004 IN.
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3	0.000	XMRP 557.0004 IN.
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4	0.000	YMRP 277.3004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 4.47

PAGE 433

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG)	B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG)	B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG)	B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG)	B4

ALPHA
0.000
0.000
0.000
0.000
0.000

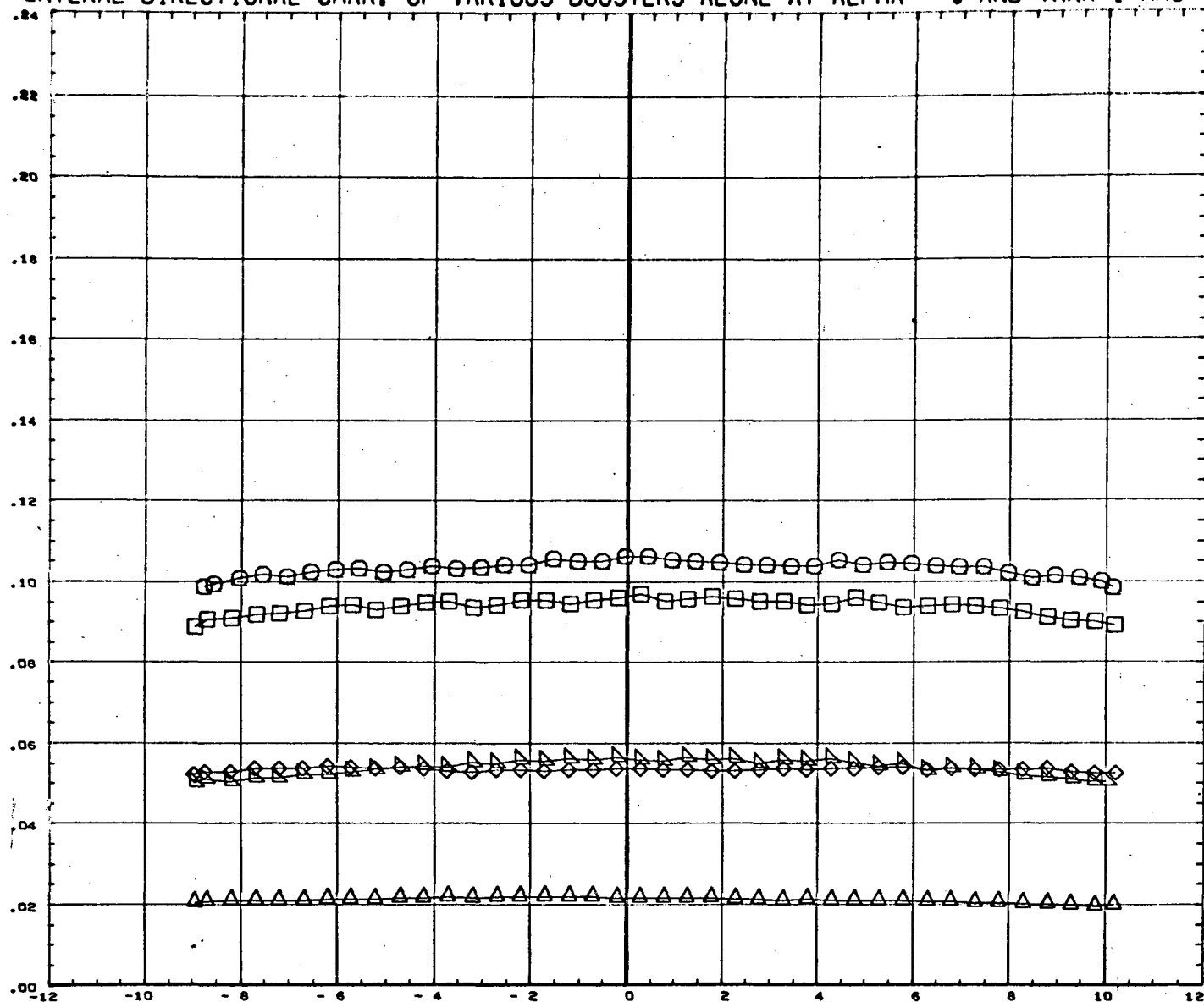
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 434

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-CG) B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-CG) B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-CG) B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-CG) B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-CG) B4

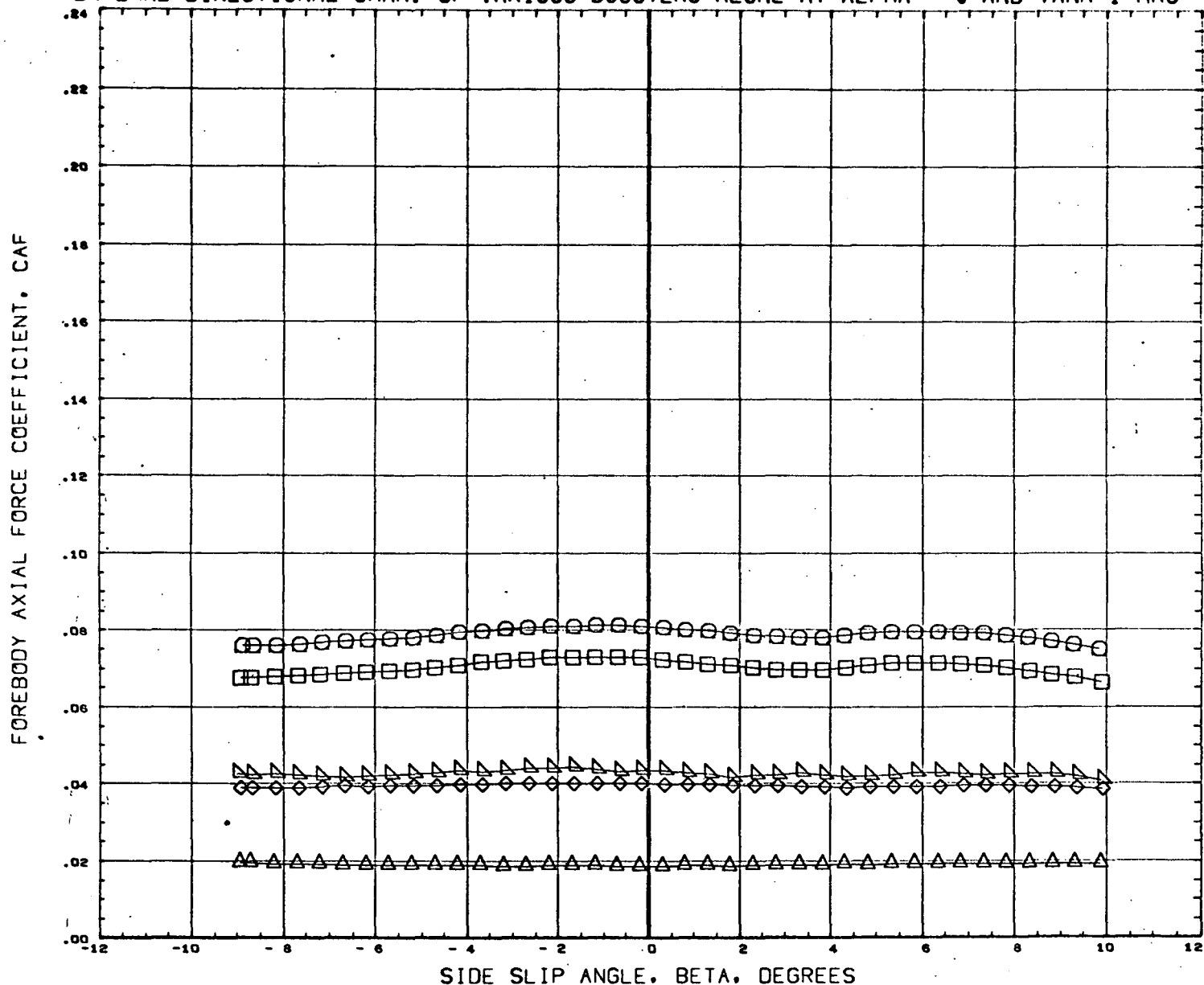
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 1.08

PAGE 435

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(RD79A1)	MDAC S-222 BOOSTER ALONE (T1-C6)	B1
(RD79A2)	MDAC S-222 BOOSTER ALONE (T1-C6)	B2
(RD79A3)	MDAC S-222 BOOSTER ALONE (T1-C6)	B2S
(RD79A4)	MDAC S-222 BOOSTER ALONE (T1-C6)	B3
(RD79A5)	MDAC S-222 BOOSTER ALONE (T1-C6)	B4

ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	277.3004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

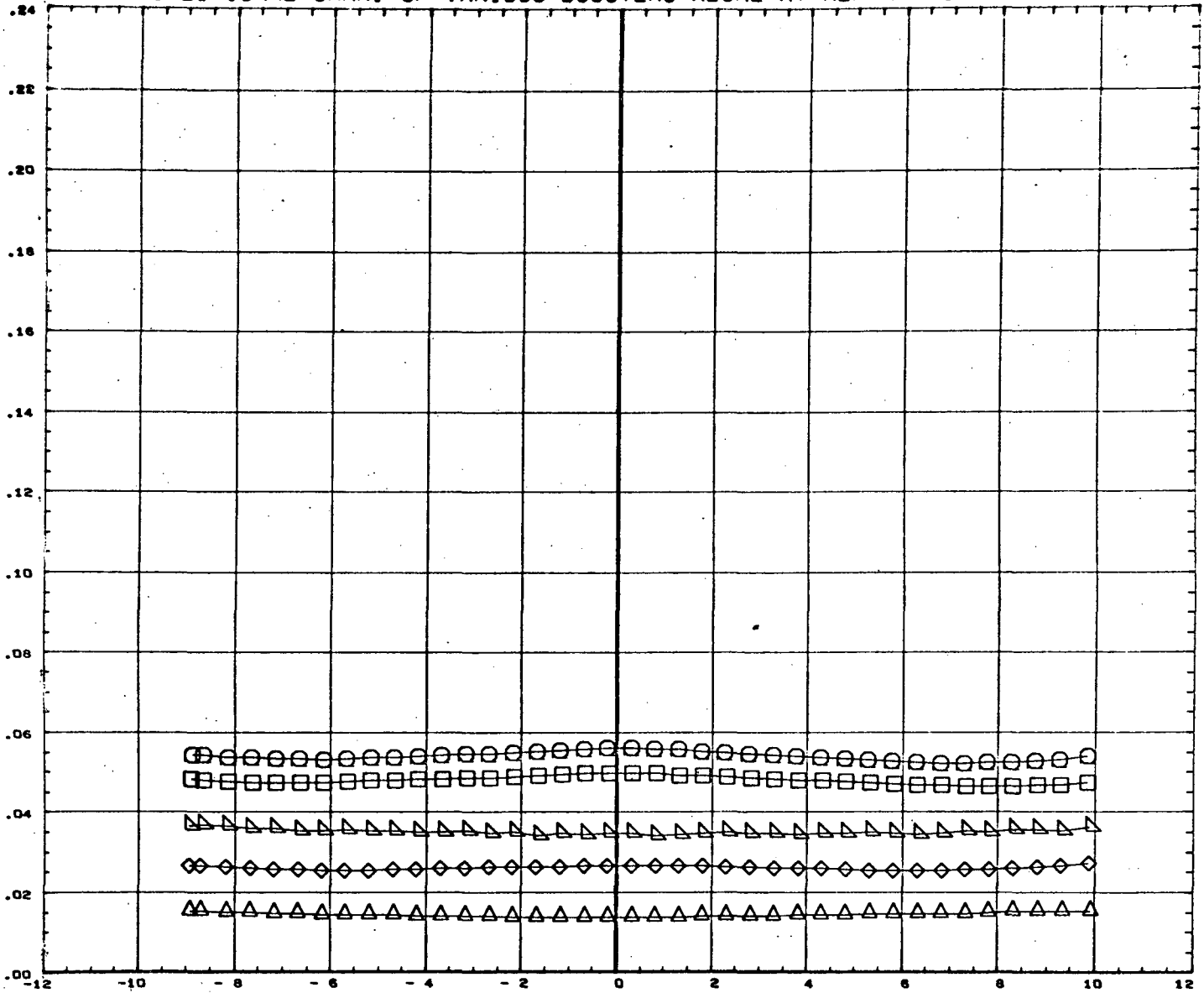
MACH 2.20

PAGE 436

C.7

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 1 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(RD79A1)	○	MDAC S-222 BOOSTER ALONE (T1-C6) B1
(RD79A2)	□	MDAC S-222 BOOSTER ALONE (T1-C6) B2
(RD79A3)	△	MDAC S-222 BOOSTER ALONE (T1-C6) B2s
(RD79A4)	◇	MDAC S-222 BOOSTER ALONE (T1-C6) B3
(RD79A5)	▽	MDAC S-222 BOOSTER ALONE (T1-C6) B4

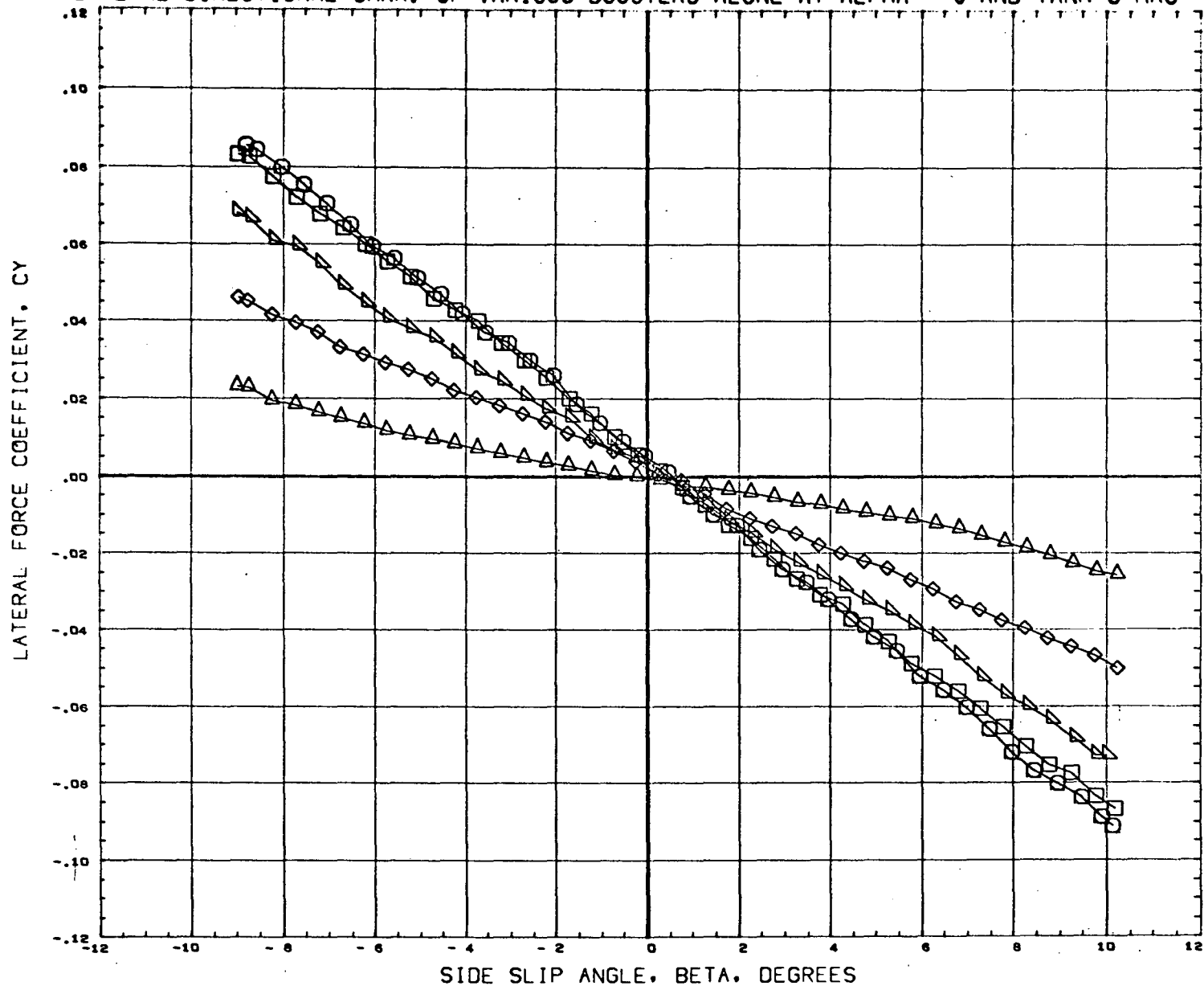
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 277.3004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 437

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

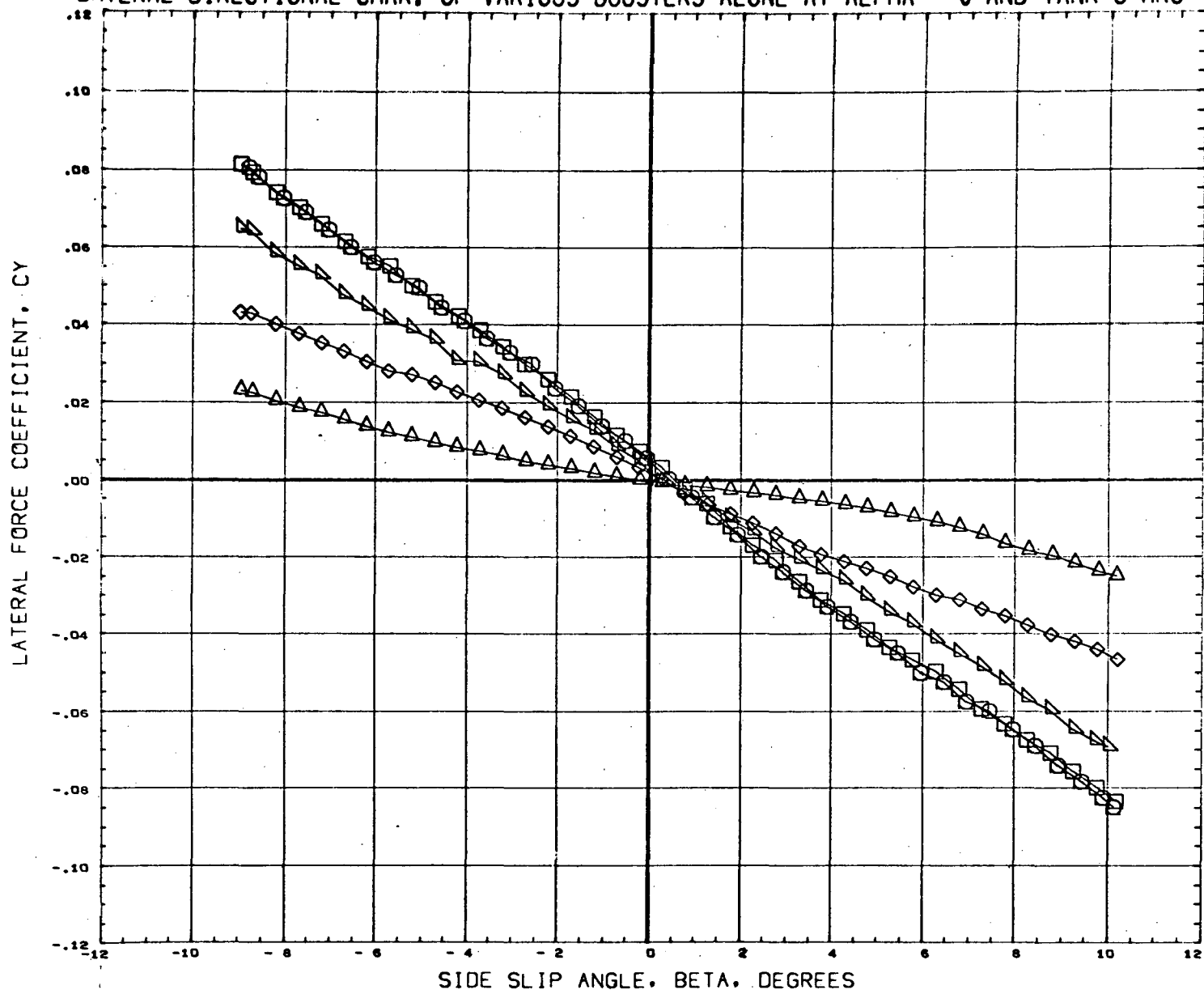
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

.89

PAGE 438

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD79B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD79B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD79B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD79B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

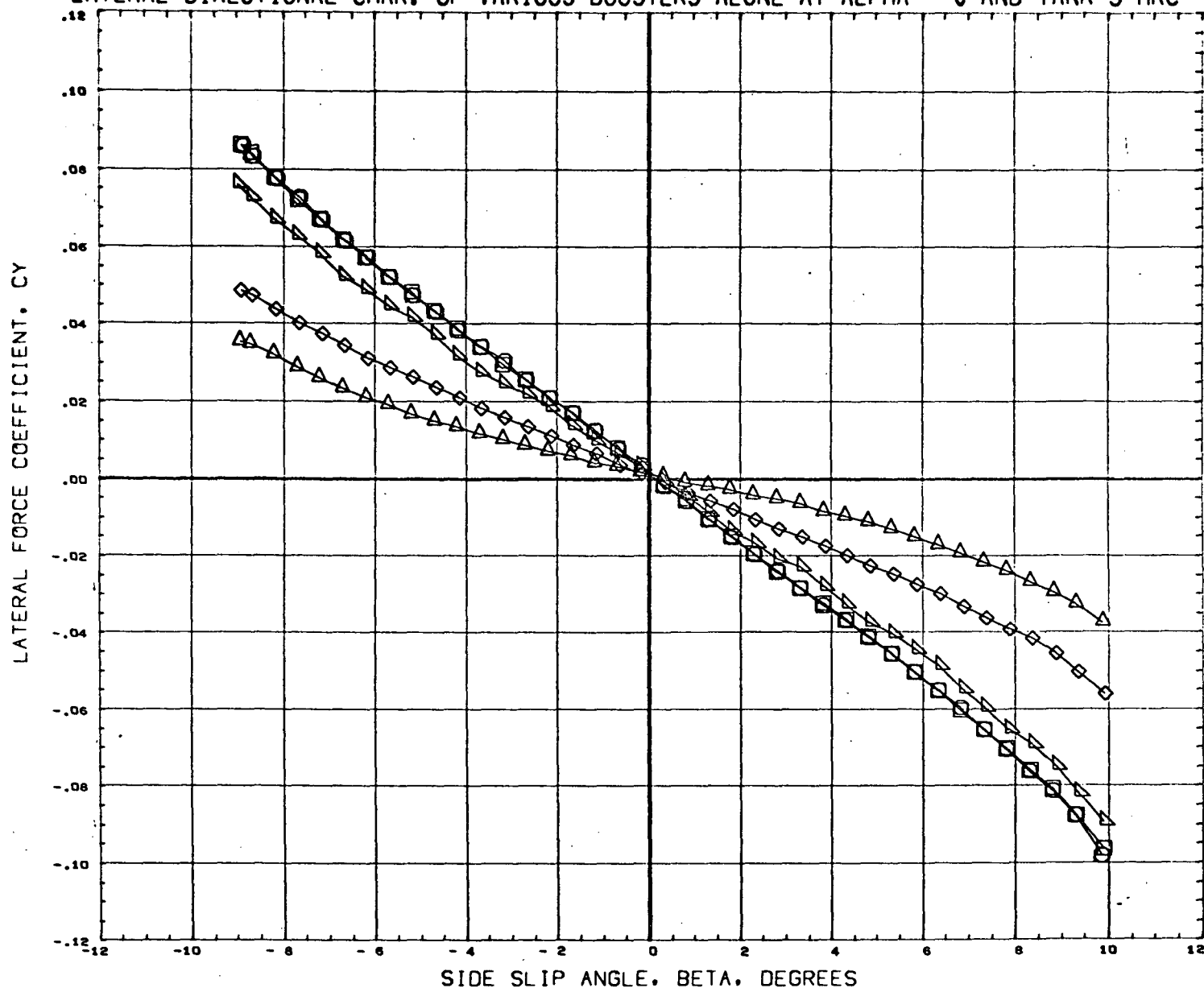
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH

1.08

PAGE 439

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

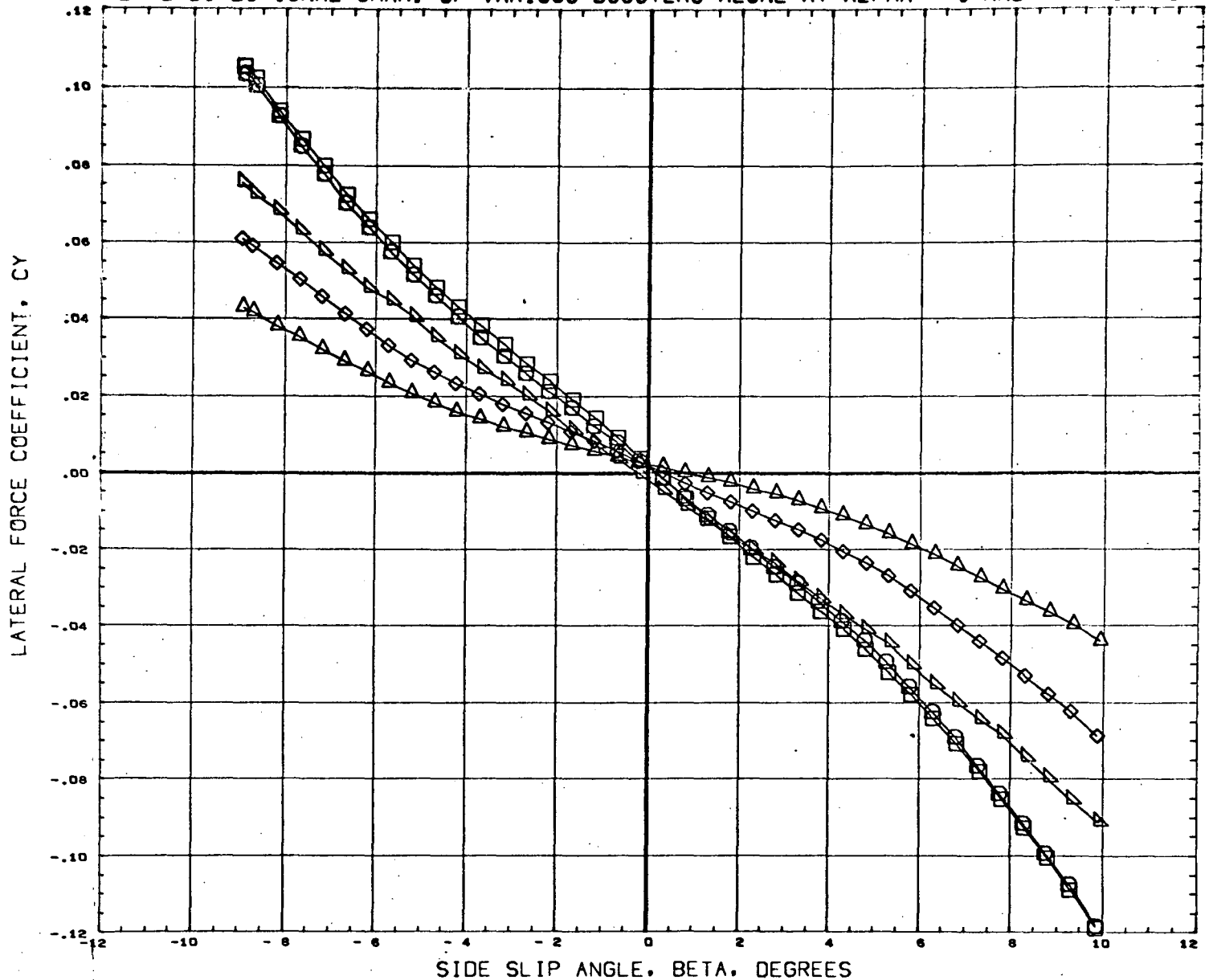
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 2.20

PAGE 440

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD79B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD79B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD79B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD79B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

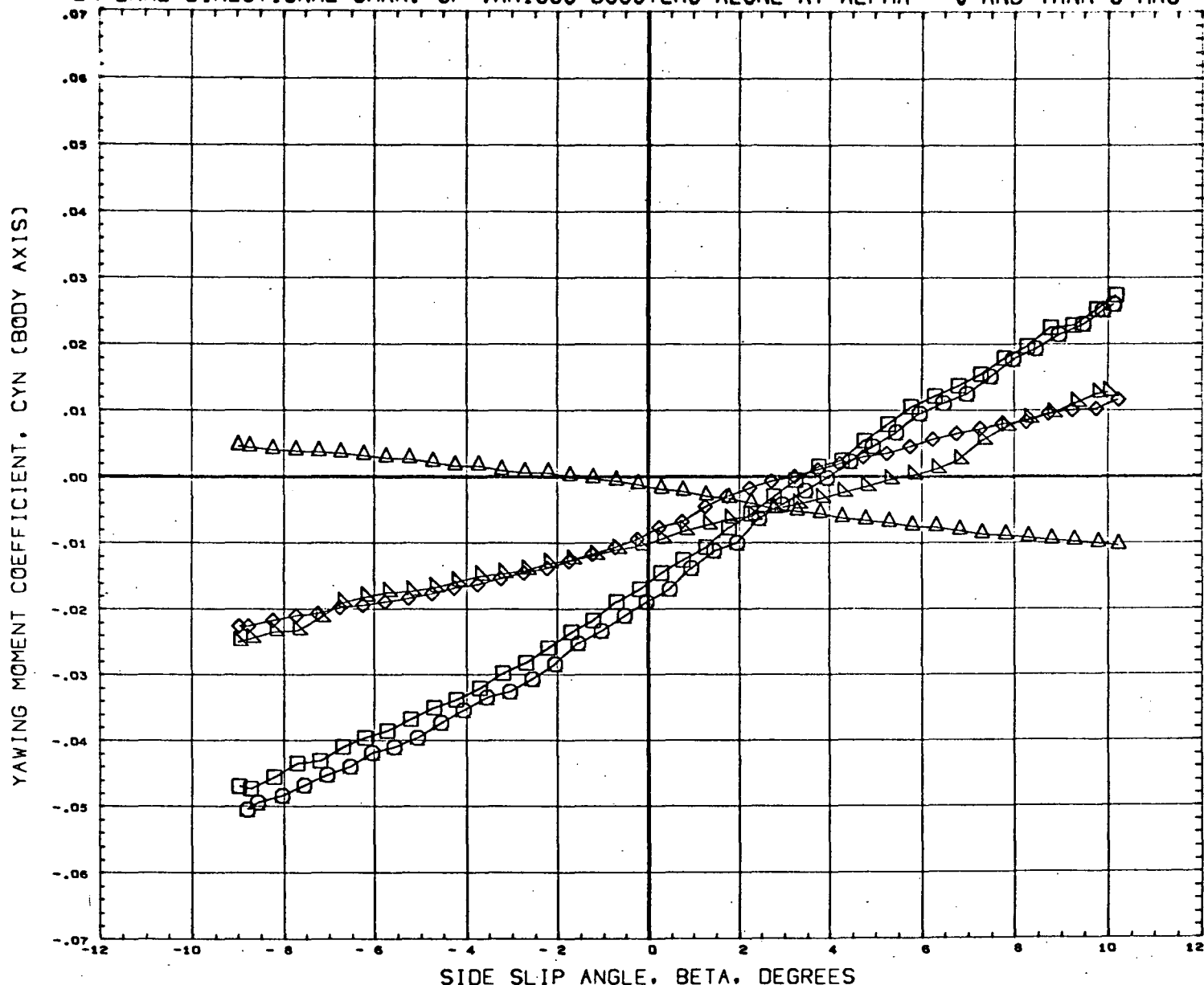
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 441

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

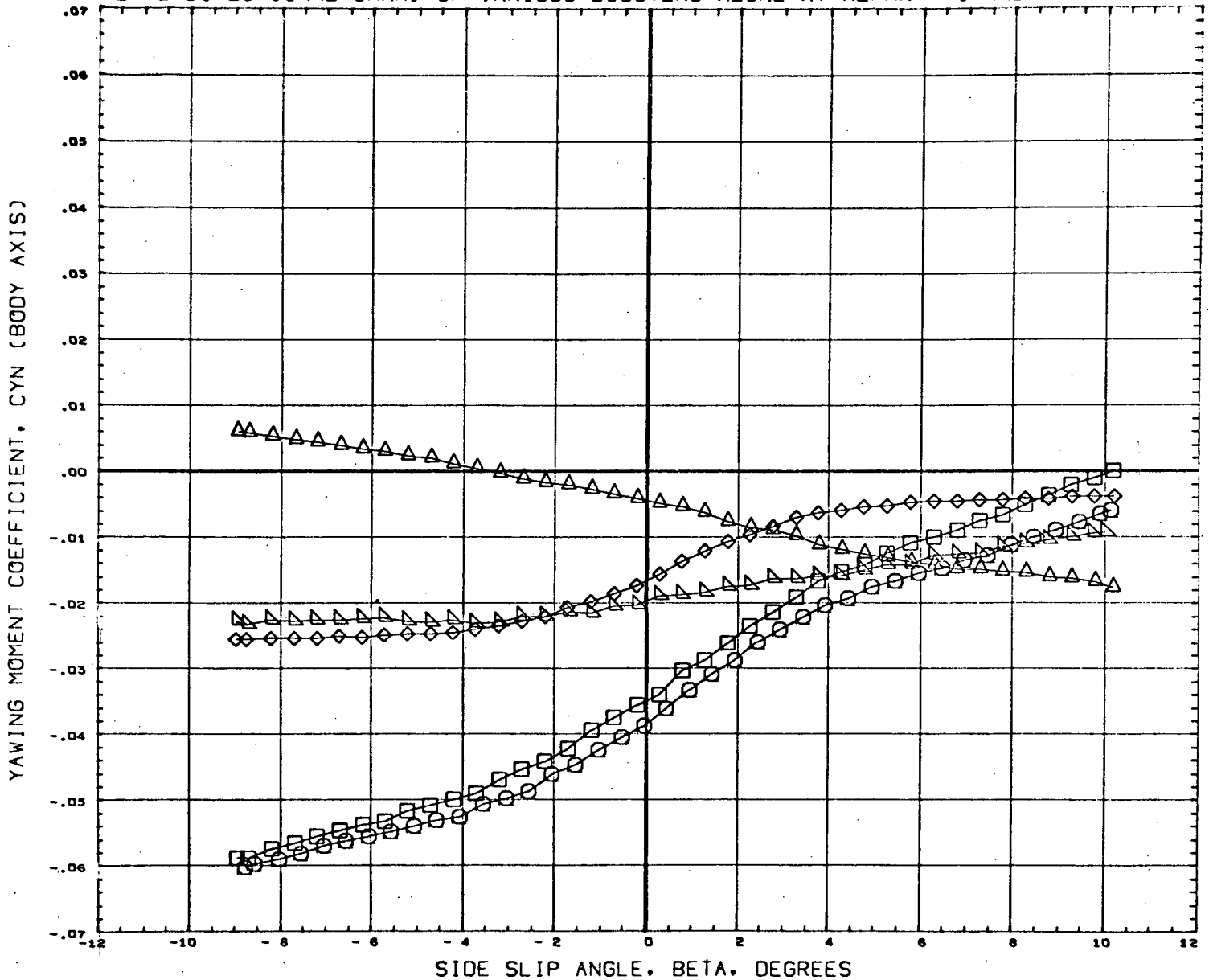
REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH

.89

PAGE 442

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC

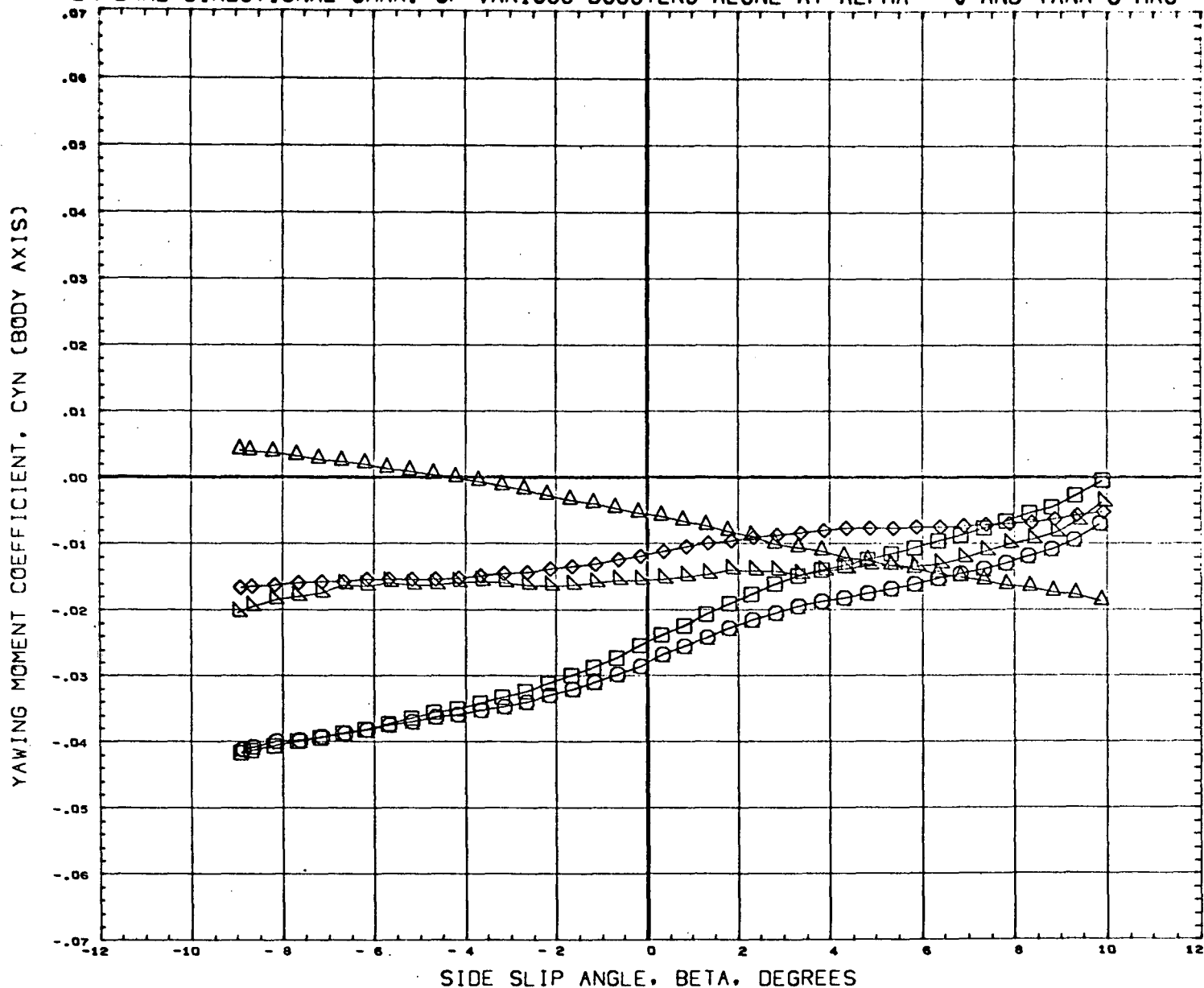


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000	SREF 3155.3040 SQ.FT.
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000	LREF 609.5004 IN.
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) 82s	0.000	BREF 882.0004 IN.
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000	XMRP 557.0004 IN.
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000	YMRP 288.7004 IN.
			ZMRP 200.0004 IN.
			SCALE 0.0060

MACH 1.08

PAGE 443

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1	
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2	
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S	
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B3	
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) B4	

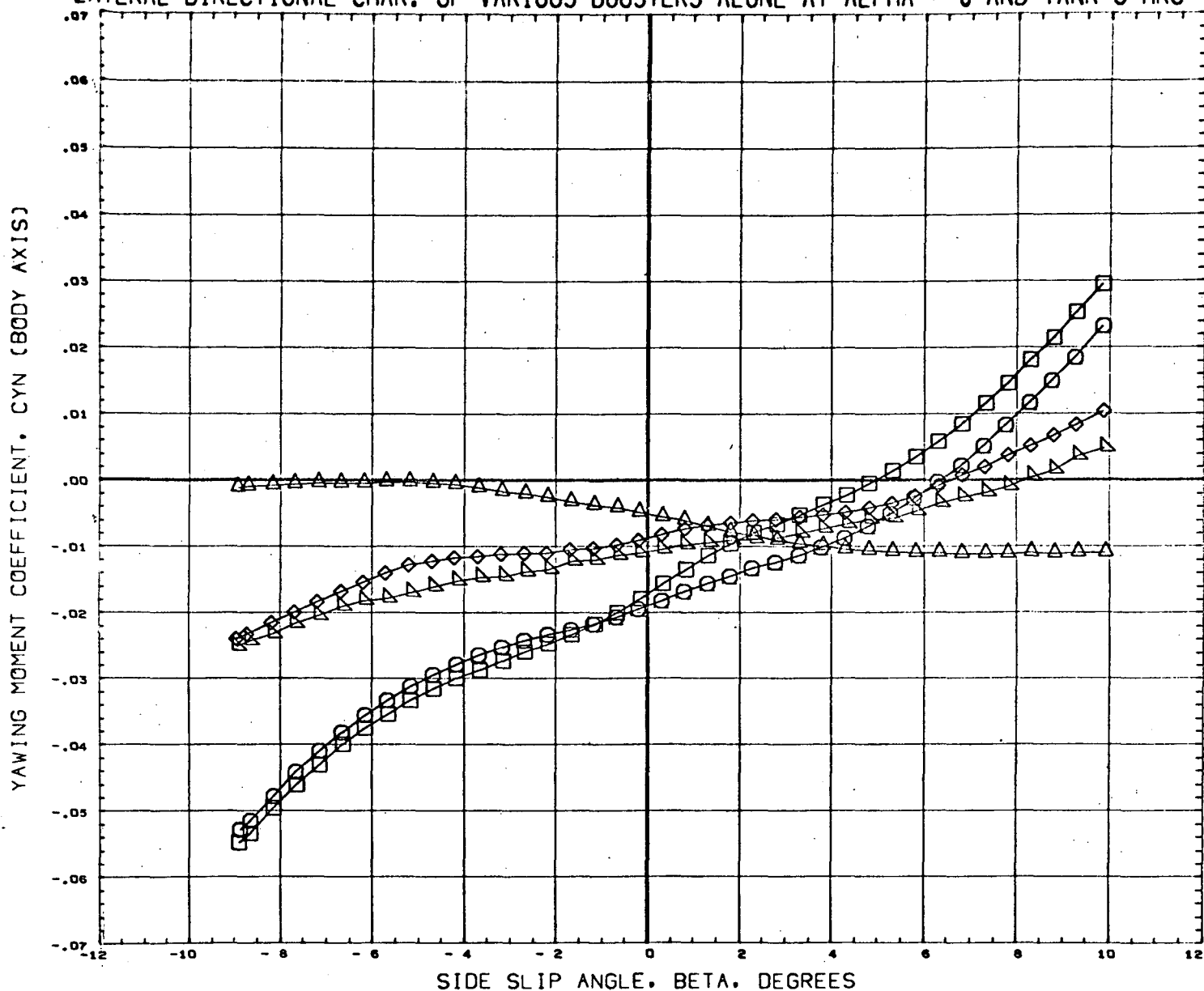
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRF	557.0004	IN.
YMRF	288.7004	IN.
ZMRF	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 444

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



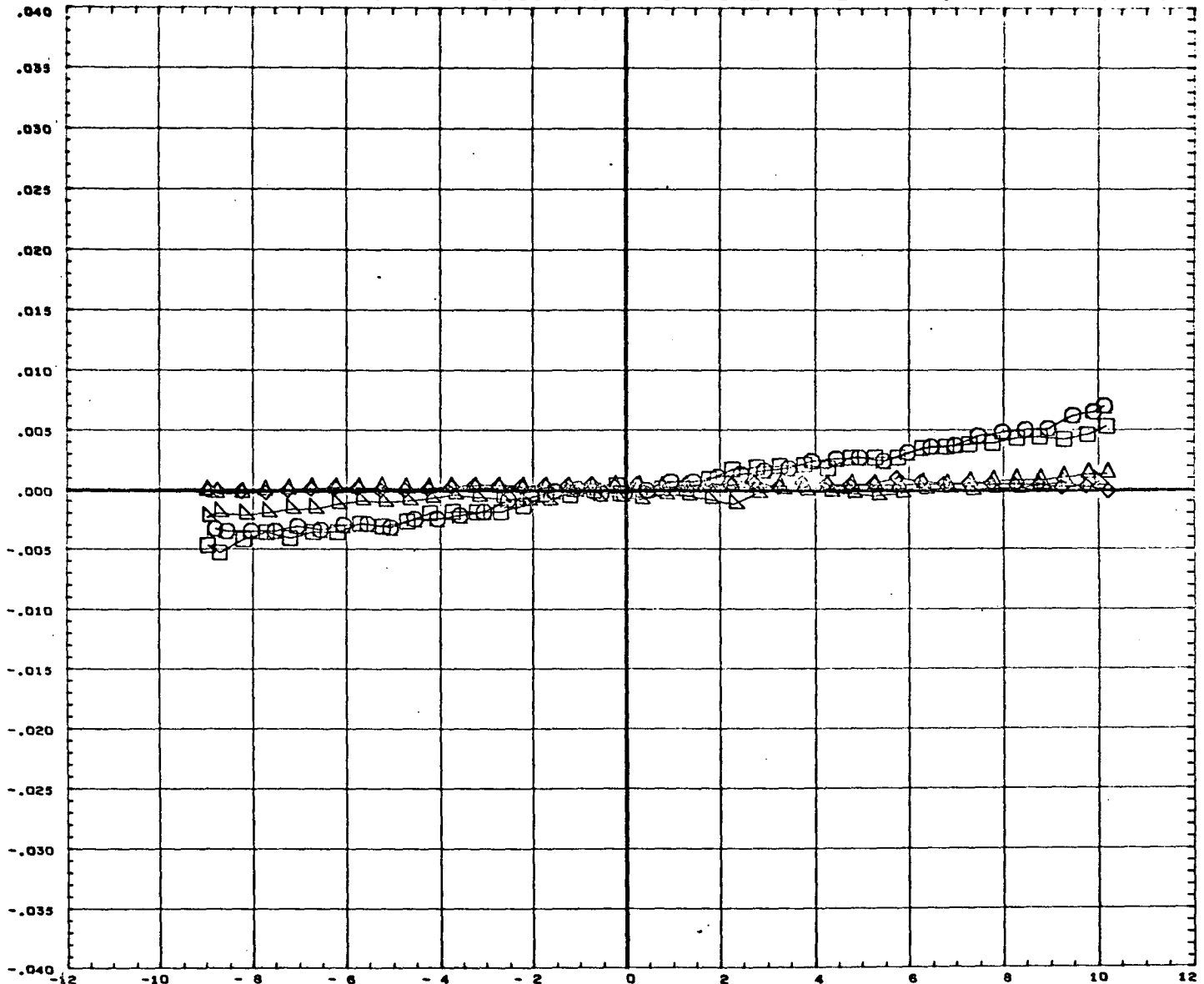
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION	
(R079B1)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000	SREF	3155.3040 SQ.FT.
(R079B2)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000	LREF	609.5004 IN.
(R079B3)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S	0.000	BREF	882.0004 IN.
(R079B4)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000	XMRP	557.0004 IN.
(R079B5)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000	YMRP	288.7004 IN.
			ZMRP	200.0004 IN.
			SCALE	0.0960

MACH 4.47

PAGE 445

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC

ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG)	B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG)	B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG)	B2S
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG)	B3
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG)	B4

ALPHA

0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION

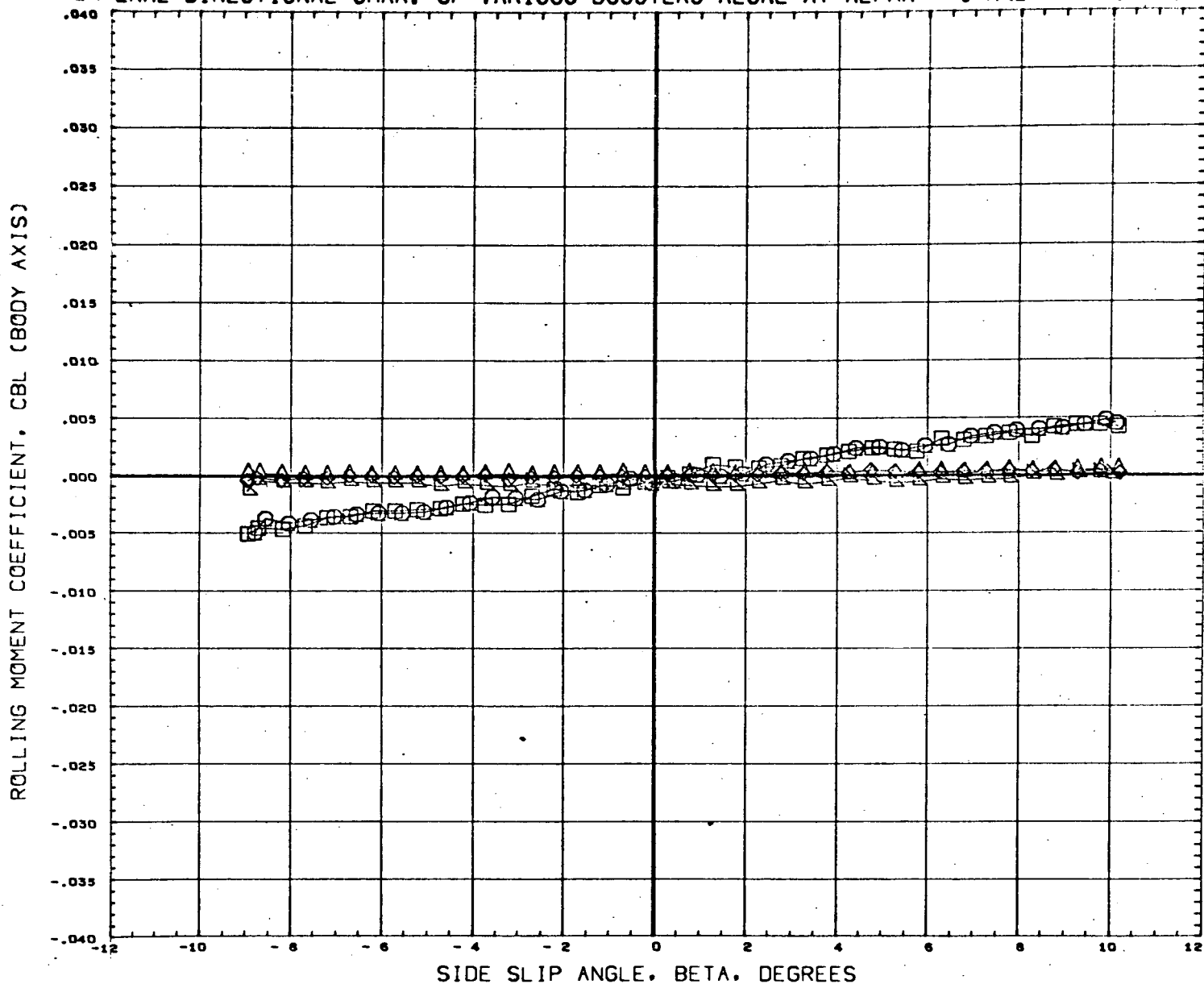
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH

.89

PAGE 446

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

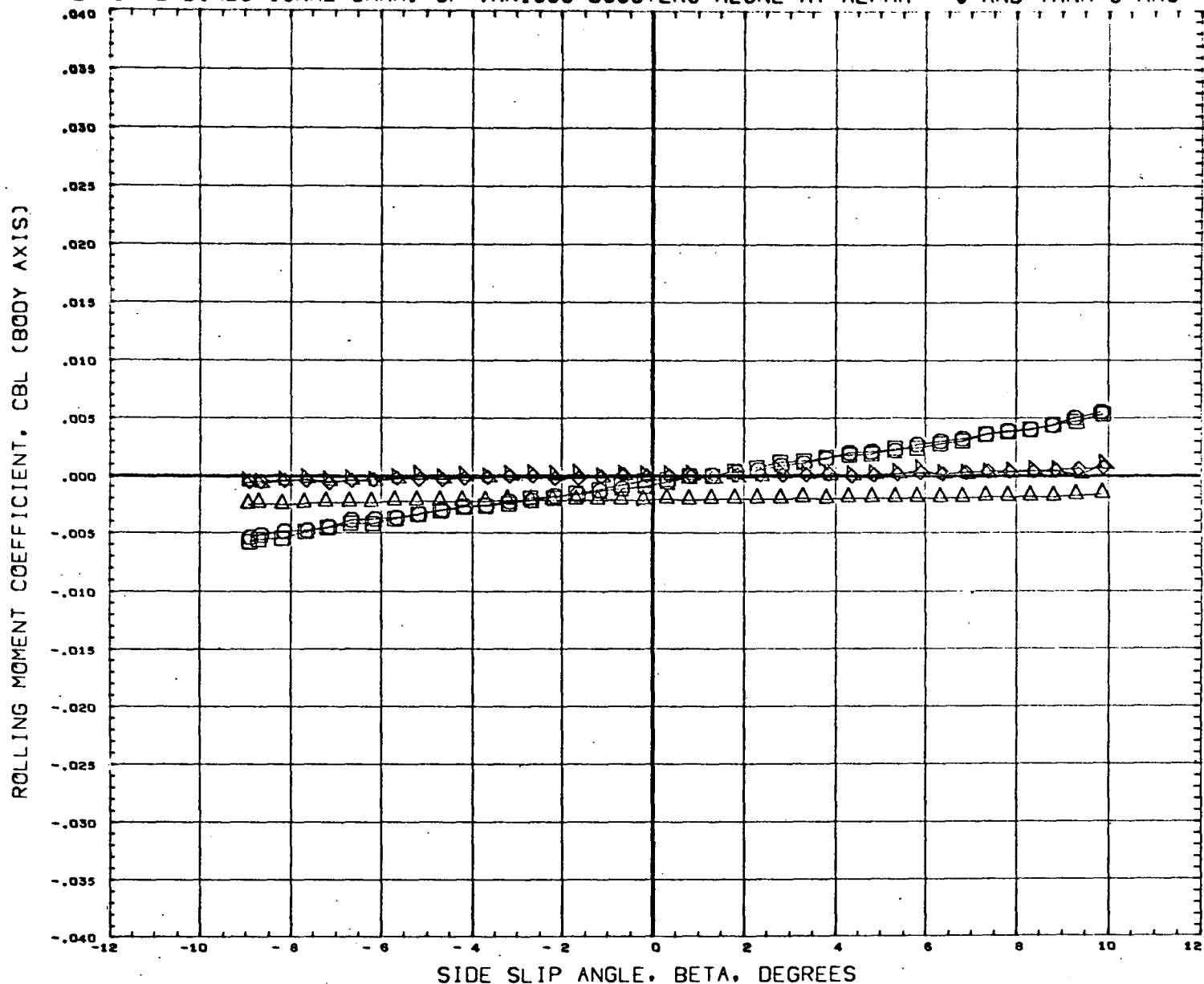
ALPHA
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3135.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
YMRP	557.0004	IN.
ZMRP	288.7004	IN.
SCALE	200.0004	IN.

MACH 1.08

PAGE 447

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(R079B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(R079B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(R079B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(R079B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(R079B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

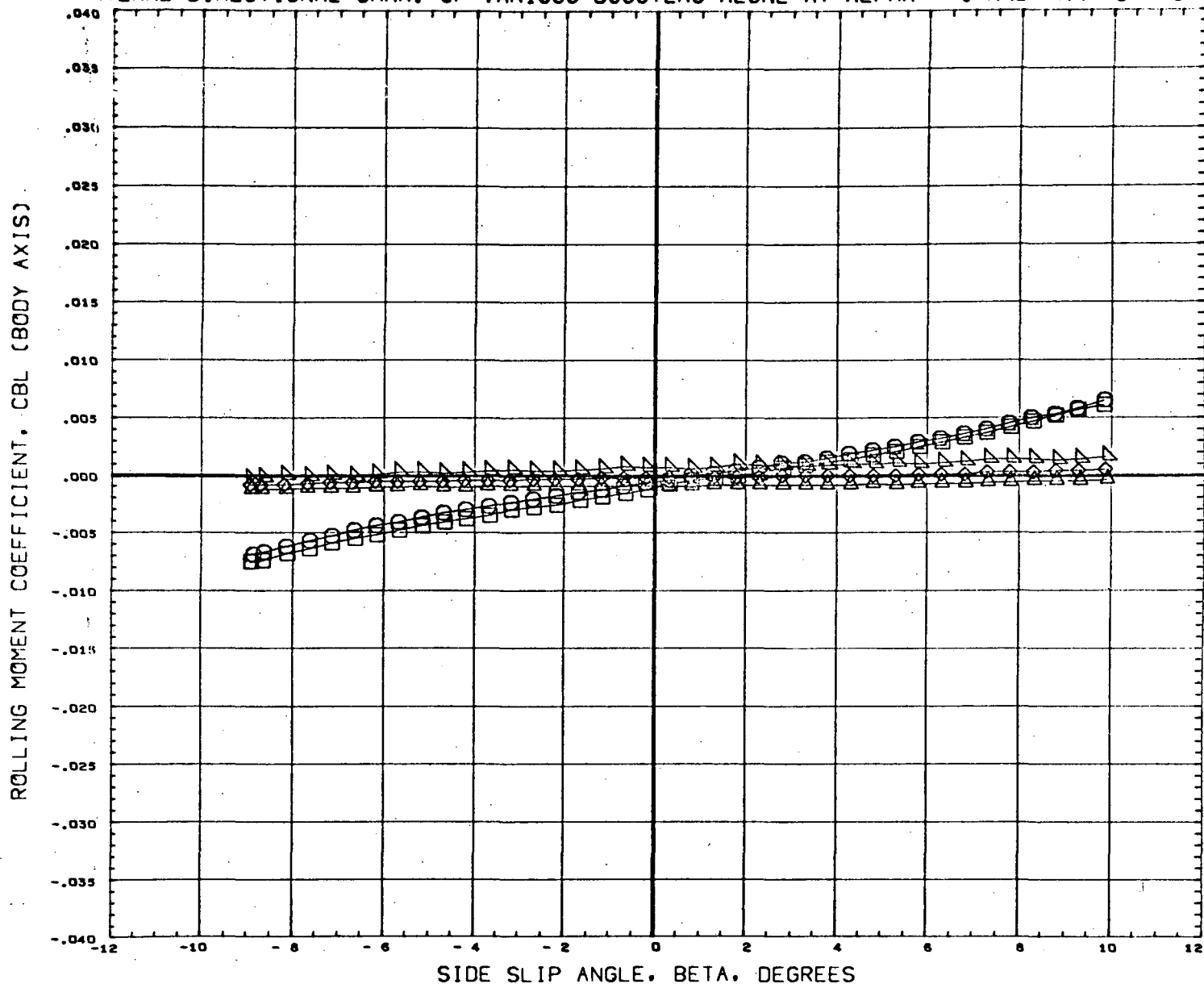
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 448

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79B1)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD79B2)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD79B3)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD79B4)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD79B5)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

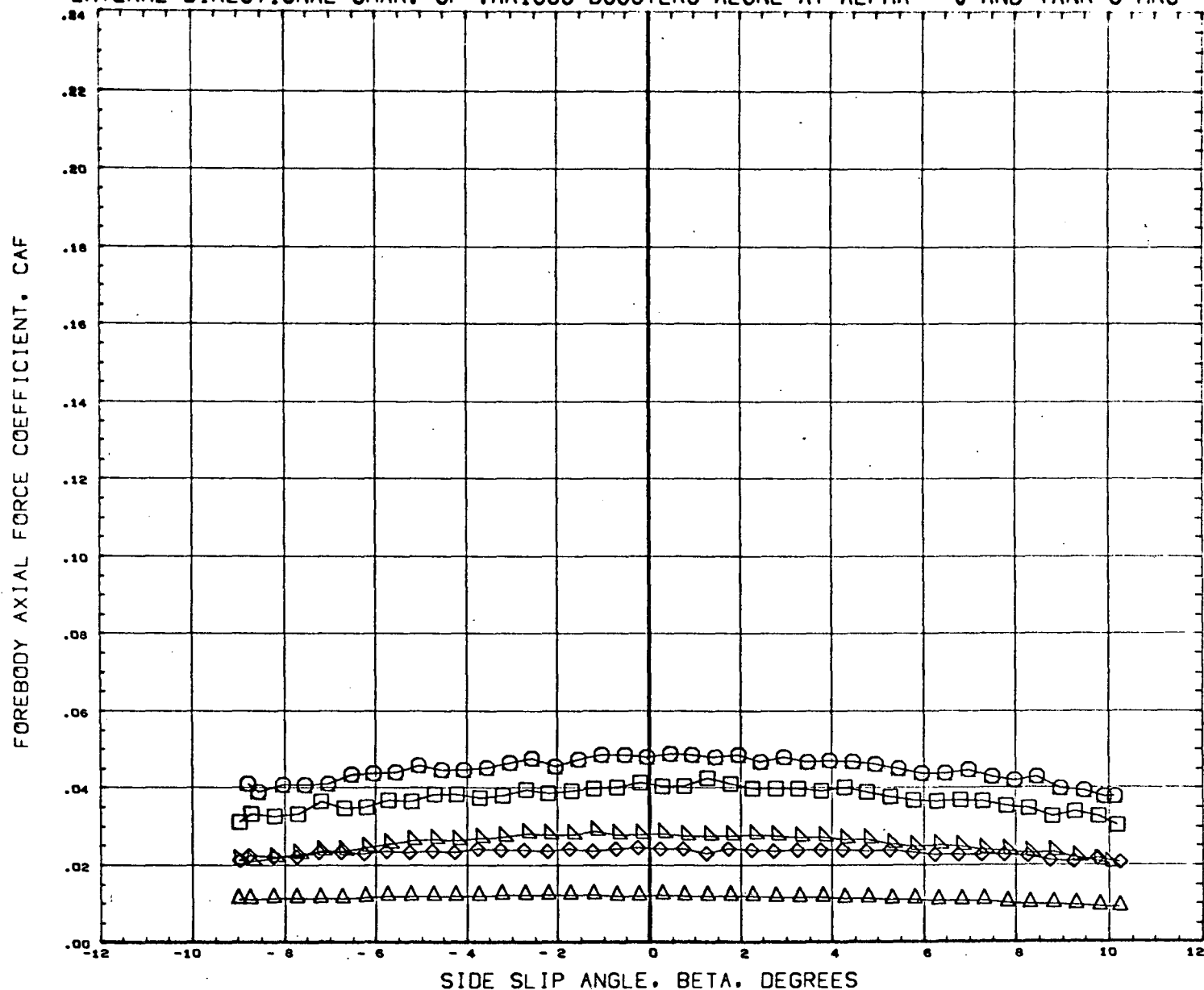
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH 4.47

PAGE 449

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

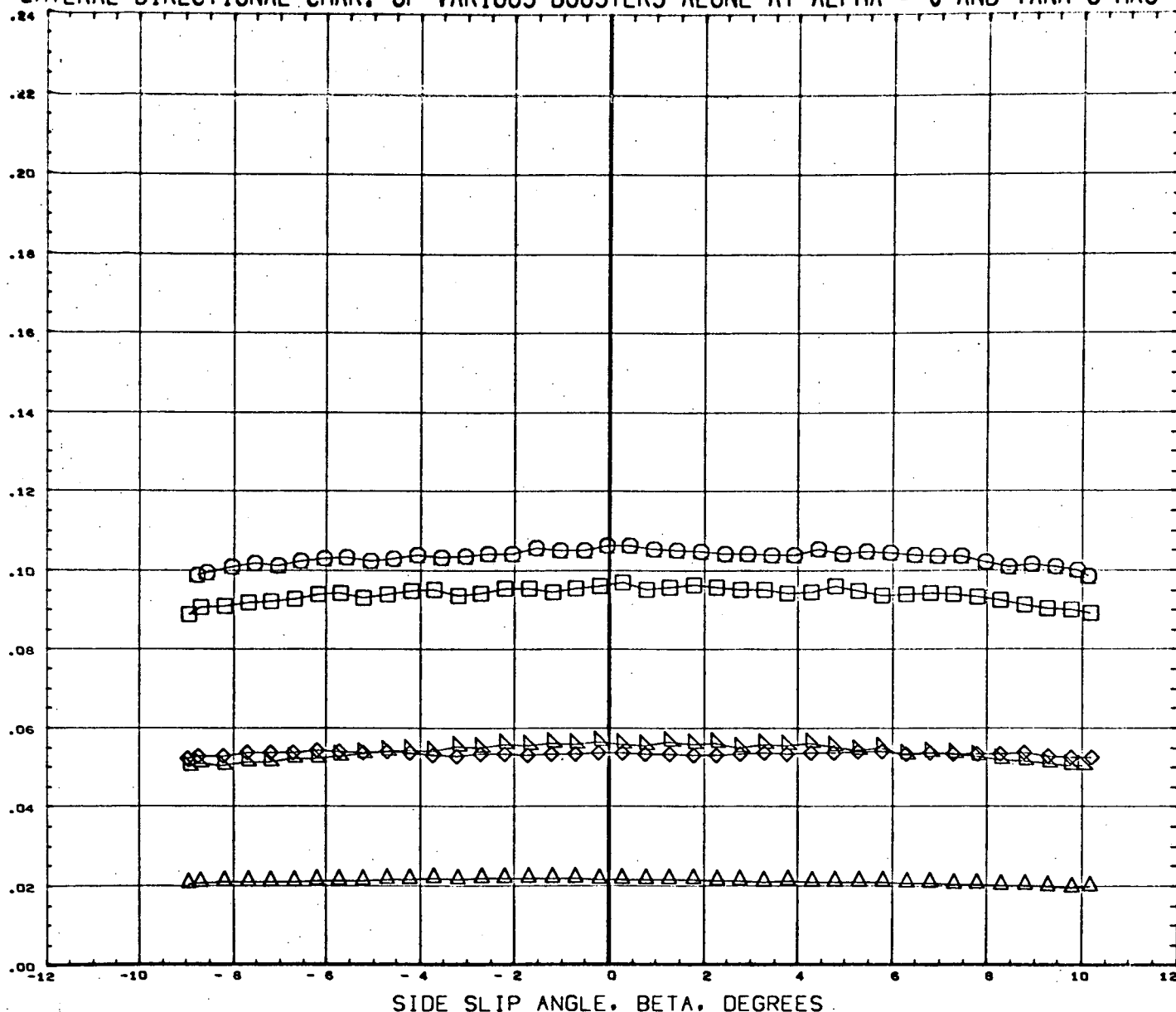
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	557.0004	IN.
YMRP	288.7004	IN.
ZMRP	200.0004	IN.
SCALE	0.0060	

MACH .89

PAGE 450

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF

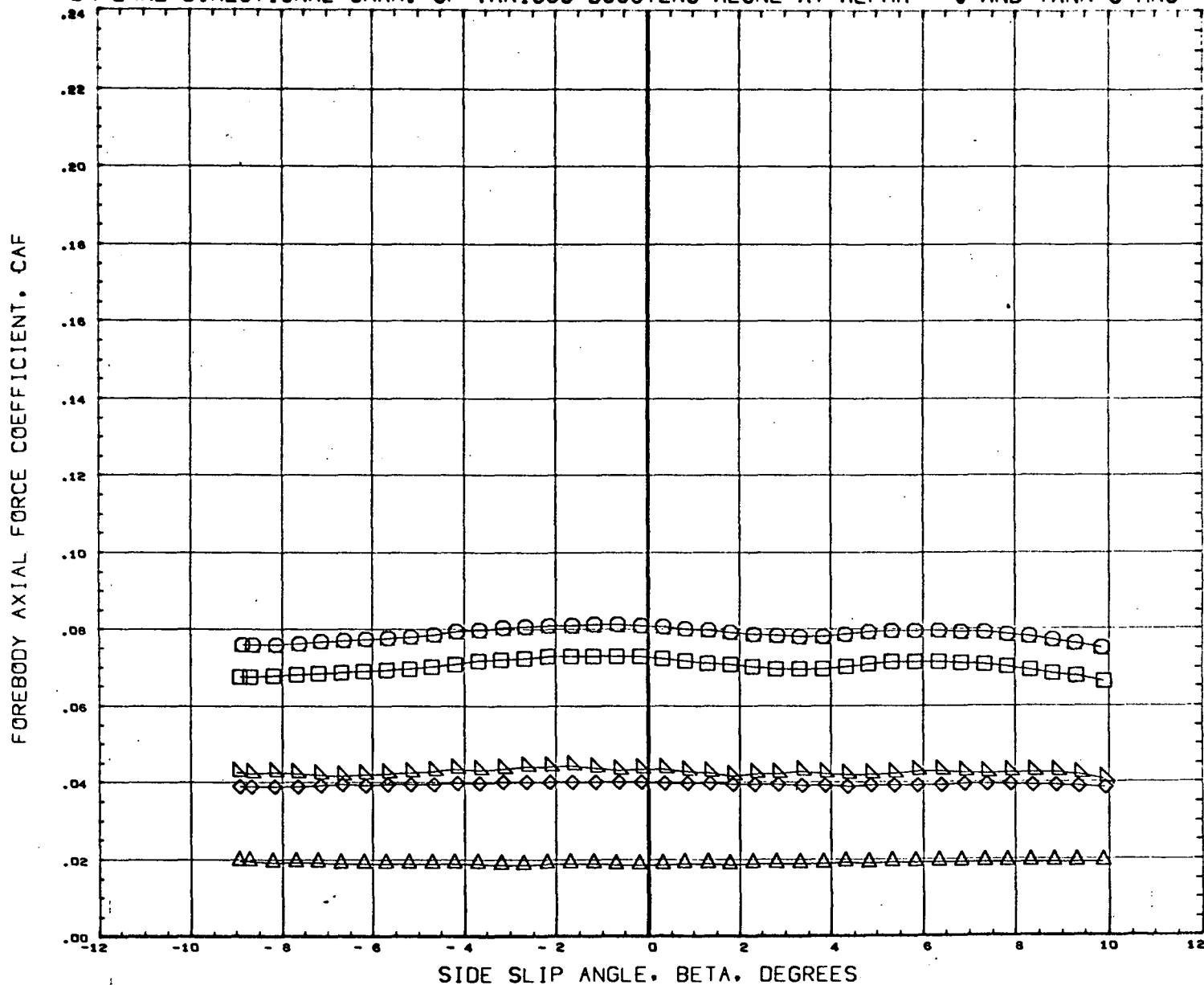


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	ALPHA	REFERENCE INFORMATION	
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) 81	0.000	SREF	3155.3040 SQ.FT.
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) 82	0.000	LREF	609.5004 IN.
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) 82S	0.000	BREF	882.0004 IN.
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) 83	0.000	XMRP	557.0004 IN.
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) 84	0.000	YMRP	288.7004 IN.
			ZMRP	200.0004 IN.
			SCALE	0.0060

MACH 1.08

PAGE 451

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD7981)	MDAC S-222 BOOSTER ALONE (T3-CG) B1
(RD7982)	MDAC S-222 BOOSTER ALONE (T3-CG) B2
(RD7983)	MDAC S-222 BOOSTER ALONE (T3-CG) B2S
(RD7984)	MDAC S-222 BOOSTER ALONE (T3-CG) B3
(RD7985)	MDAC S-222 BOOSTER ALONE (T3-CG) B4

ALPHA
0.000
0.000
0.000
0.000
0.000

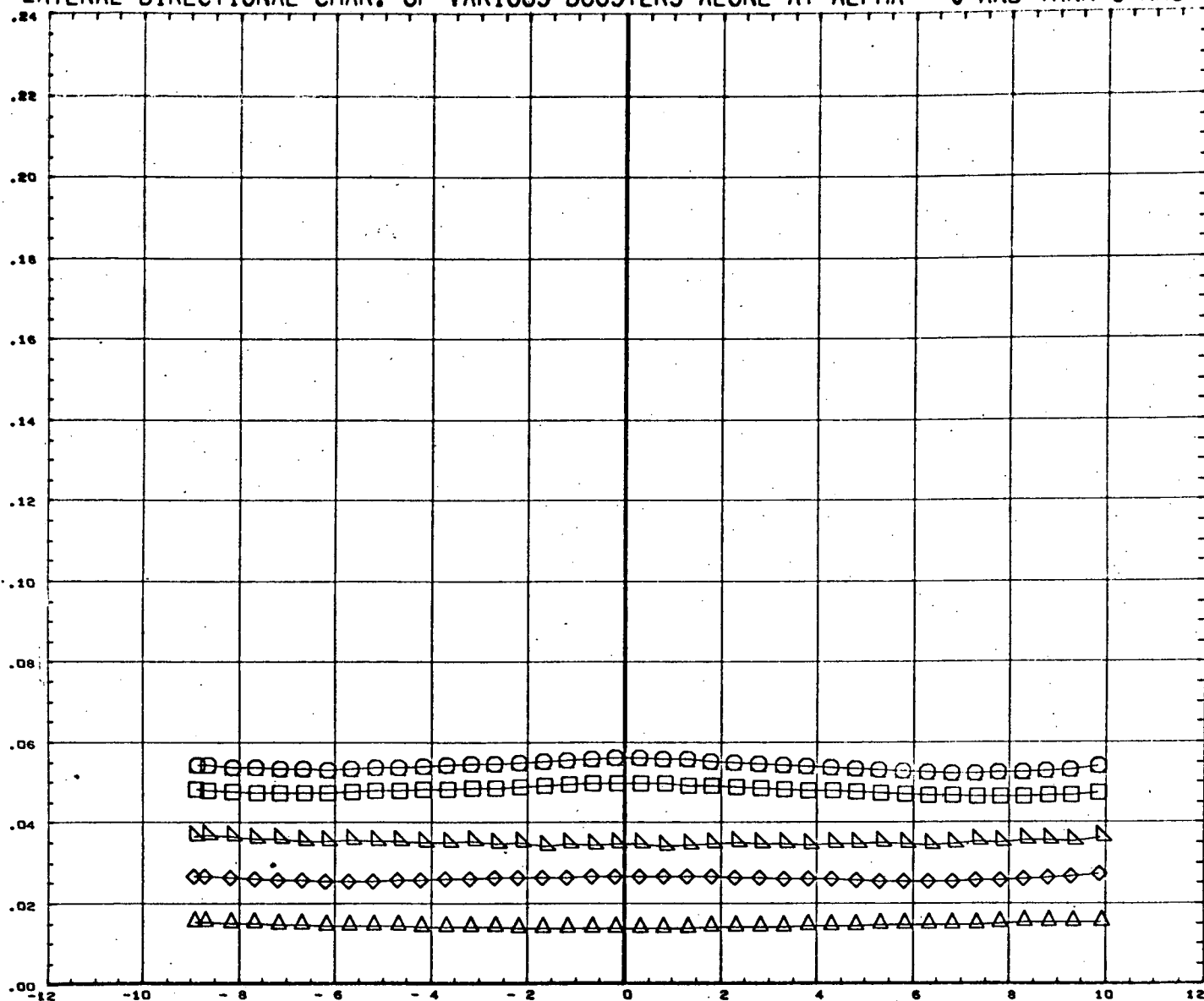
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMHP	557.0004	IN.
YMHP	288.7004	IN.
ZMHP	200.0004	IN.
SCALE	0.0060	

MACH 2.20

PAGE 452

LATERAL-DIRECTIONAL CHAR. OF VARIOUS BOOSTERS ALONE AT ALPHA = 0 AND TANK 3 MRC

FOREBODY AXIAL FORCE COEFFICIENT, CAF



SIDE SLIP ANGLE, BETA, DEGREES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(RD79B1)	MDAC S-222 BOOSTER ALONE (T3-C6) B1
(RD79B2)	MDAC S-222 BOOSTER ALONE (T3-C6) B2
(RD79B3)	MDAC S-222 BOOSTER ALONE (T3-C6) B2S
(RD79B4)	MDAC S-222 BOOSTER ALONE (T3-C6) B3
(RD79B5)	MDAC S-222 BOOSTER ALONE (T3-C6) B4

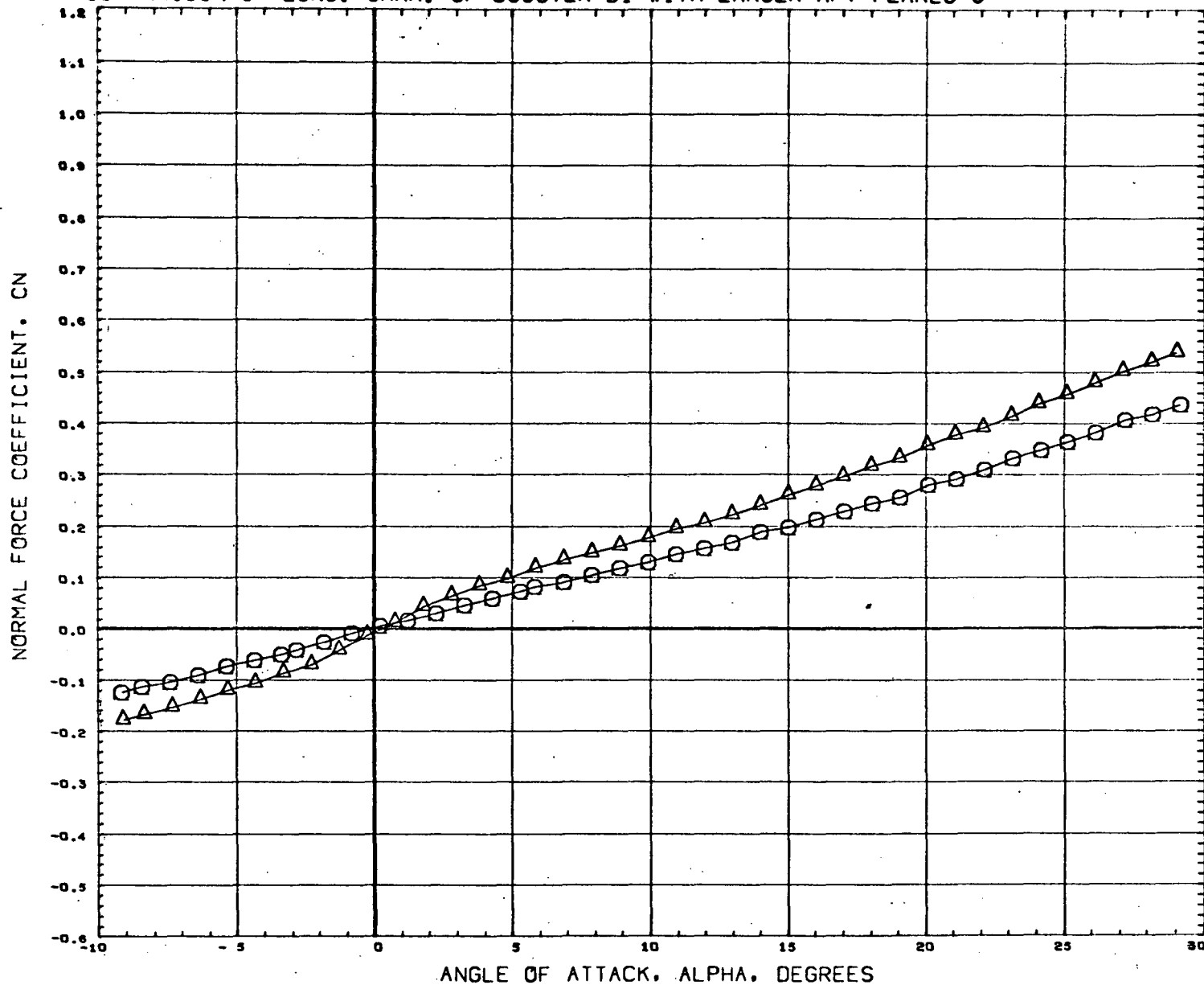
ALPHA
0.000
0.000
0.000
0.000
0.000

REFERENCE INFORMATION
SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 557.0004 IN.
YMRP 288.7004 IN.
ZMRP 200.0004 IN.
SCALE 0.0060

MACH 4.47

PAGE 453

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

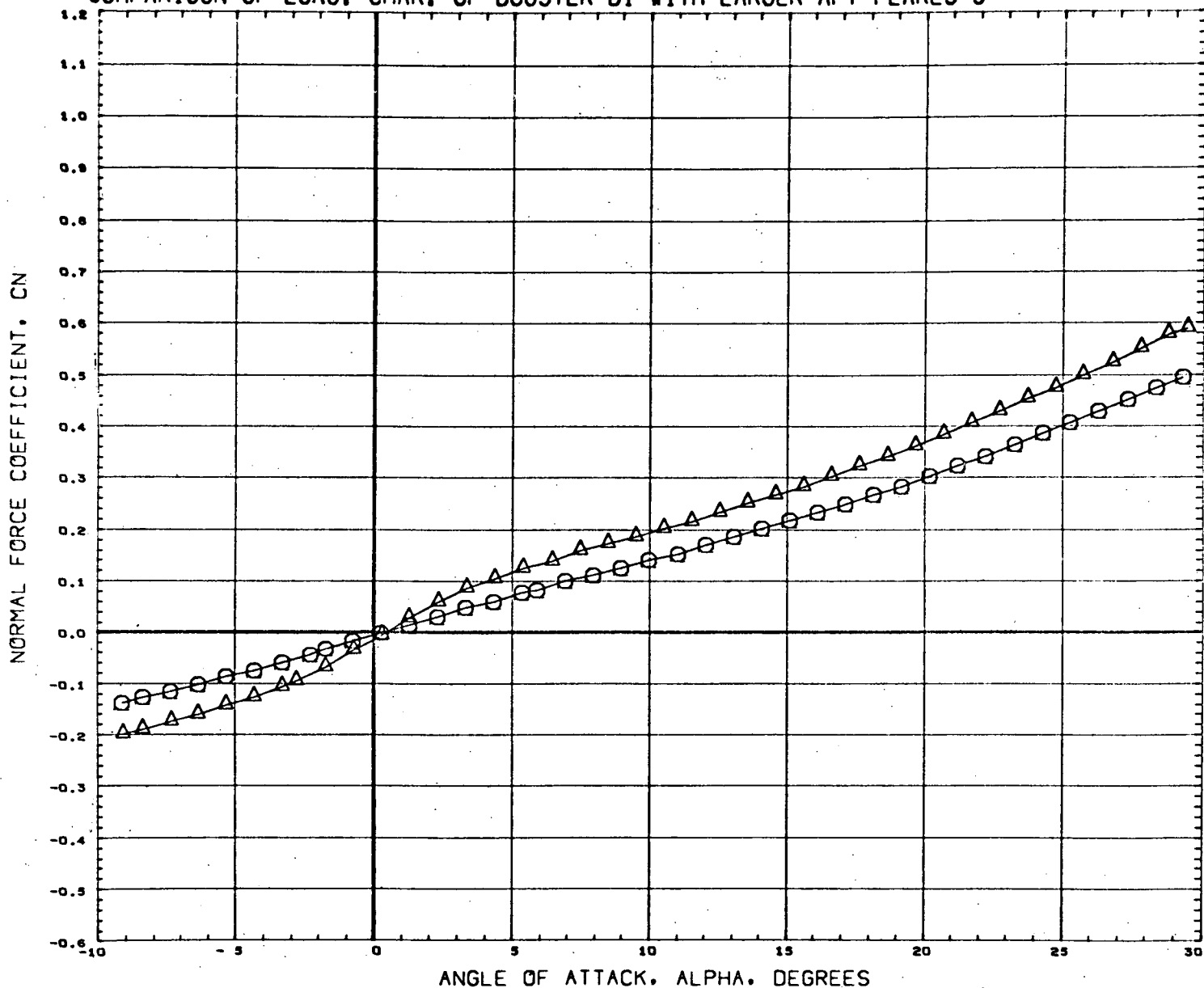
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 454

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

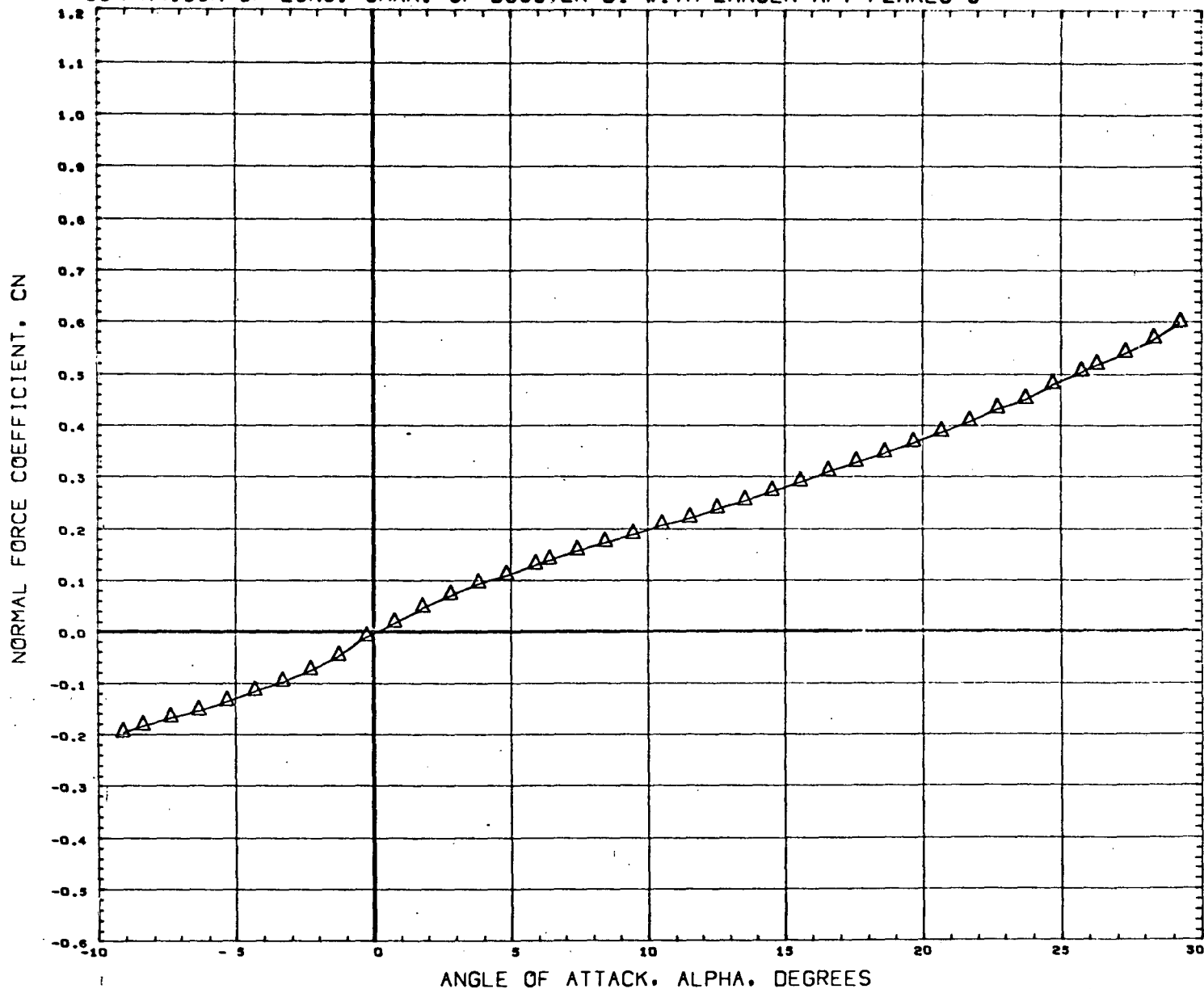
BETA
0.000
0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0060 SCALE

MACH .95

PAGE 455

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

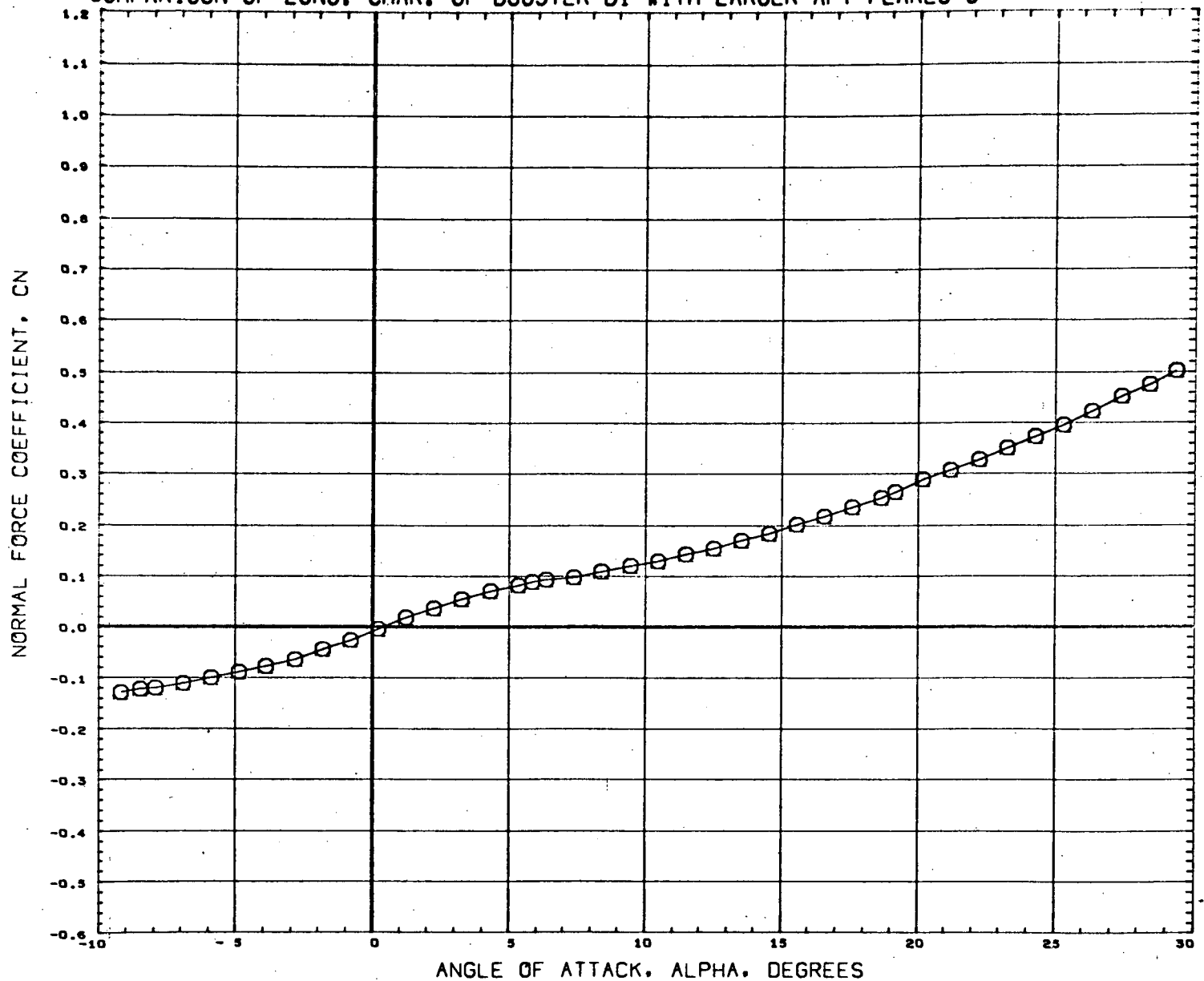
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0069 SCALE

MACH .98

PAGE 456

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

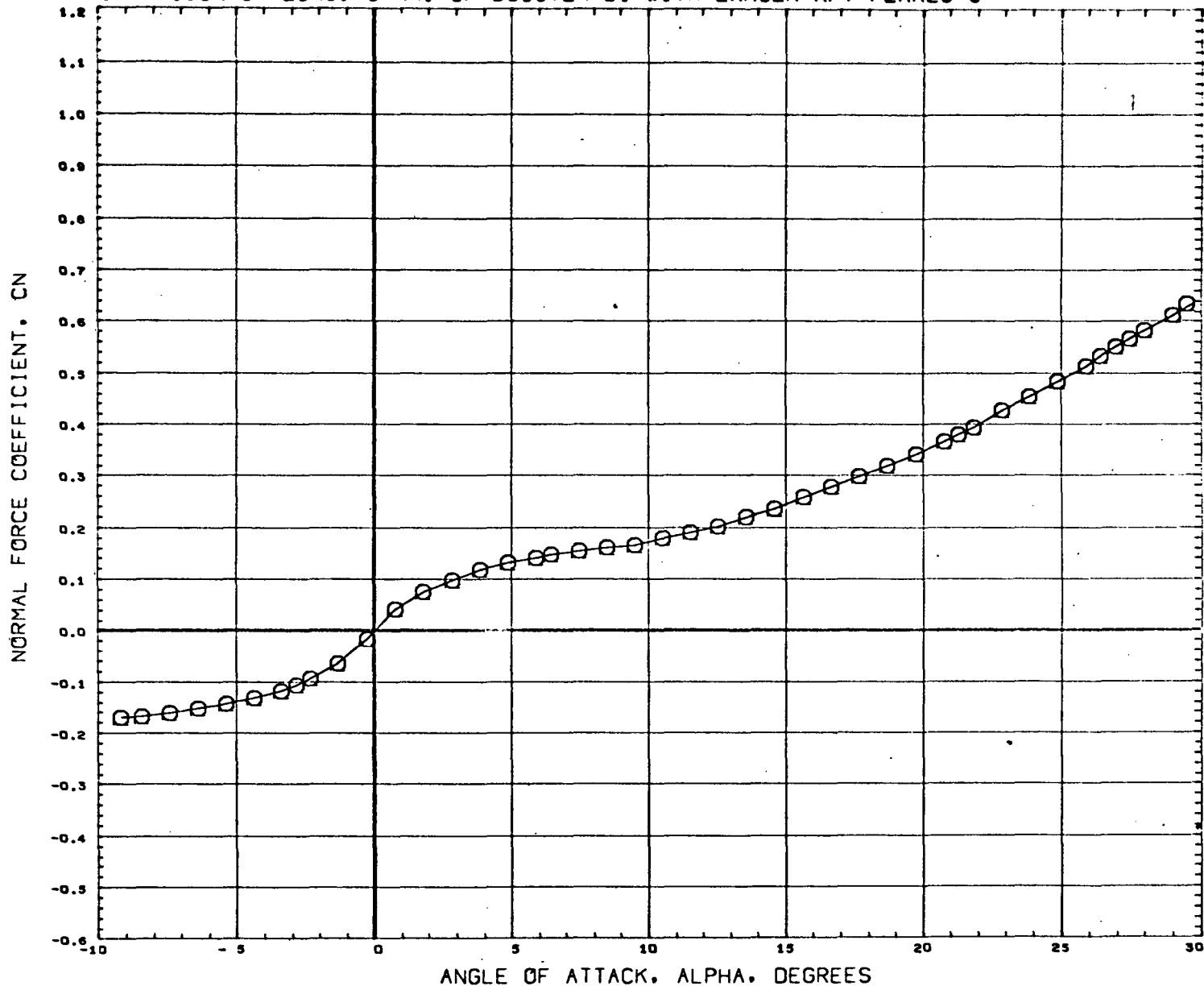
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 457

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \bigcirc MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS

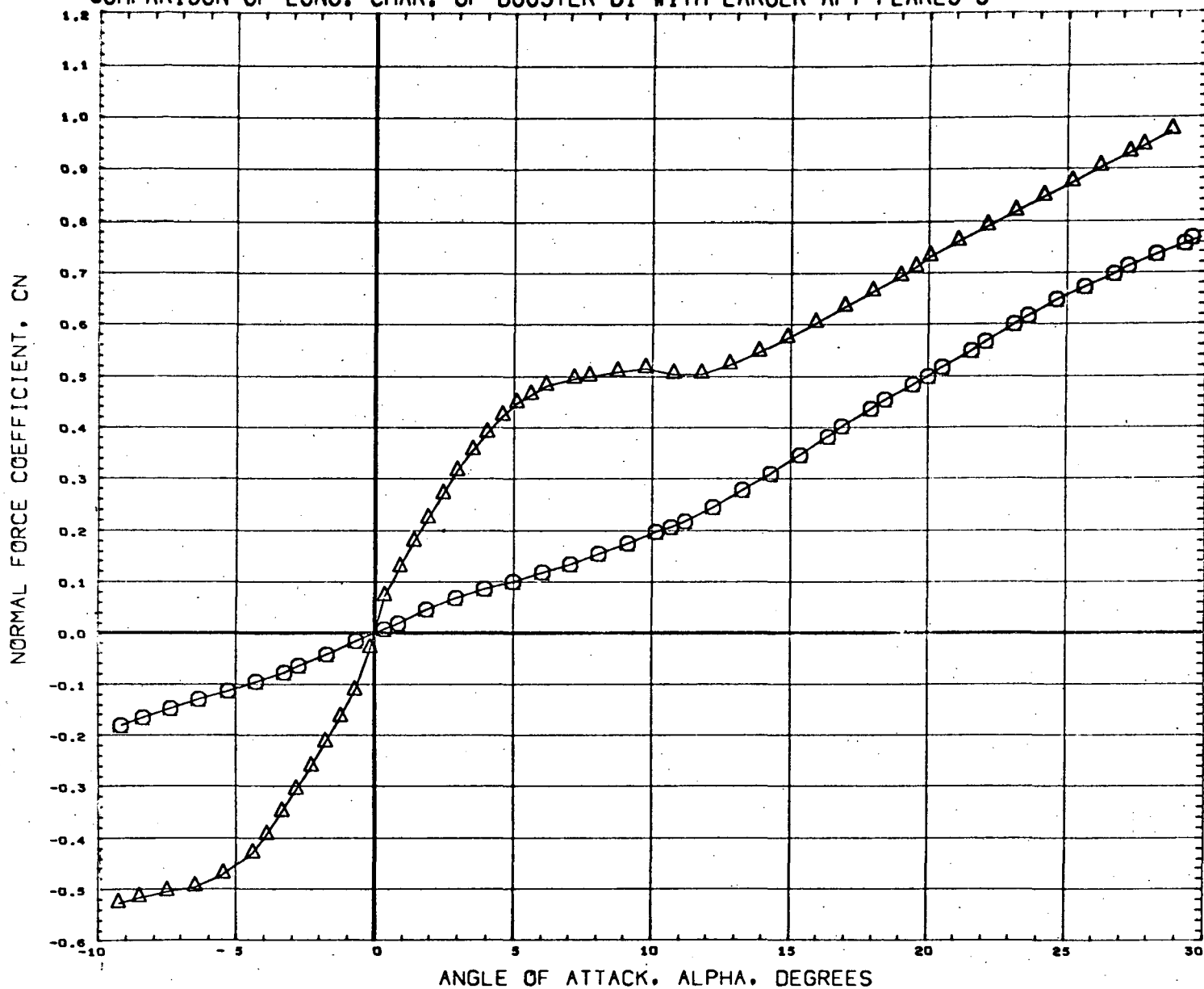
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 458

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

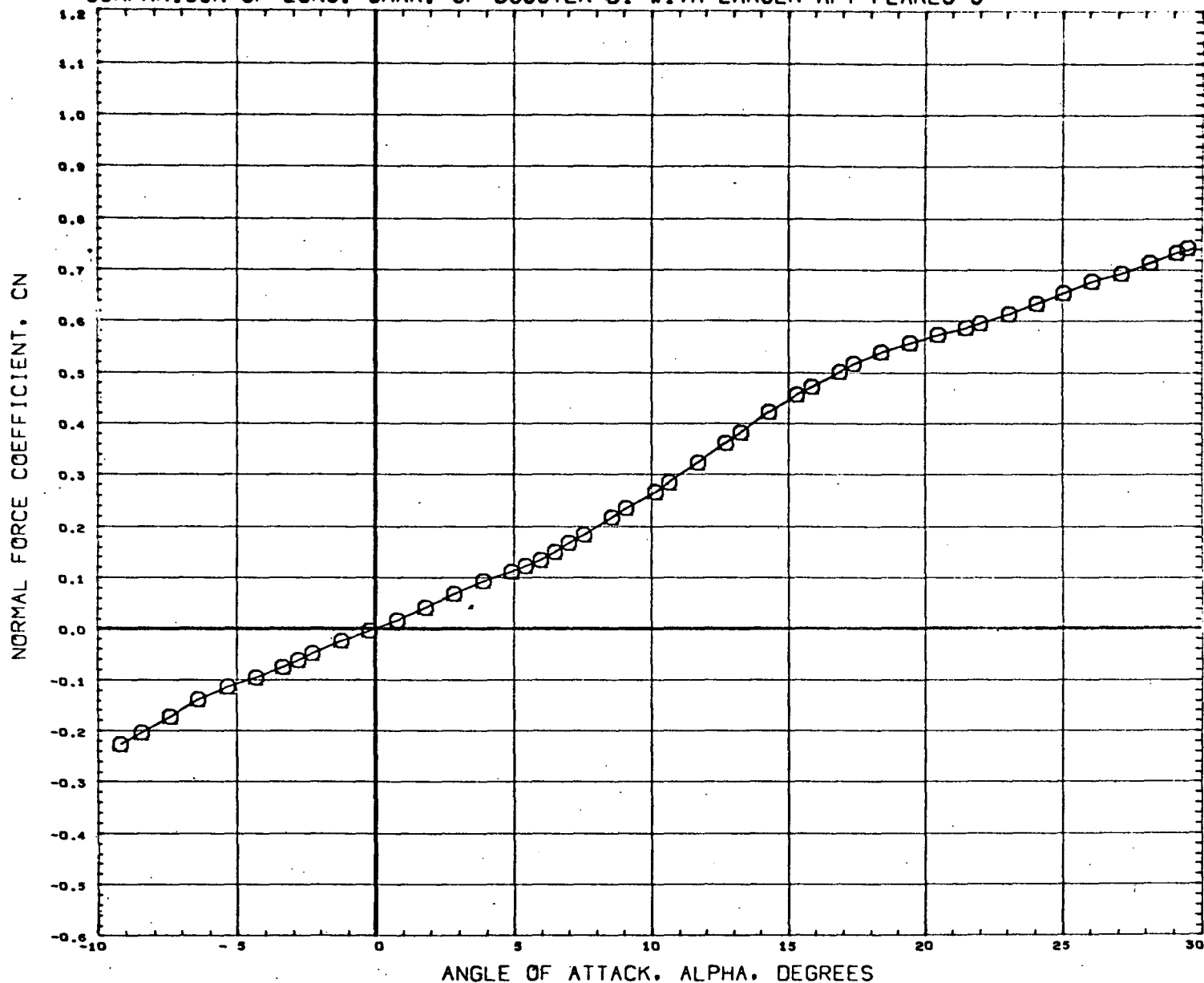
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 662.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 459

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NGM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

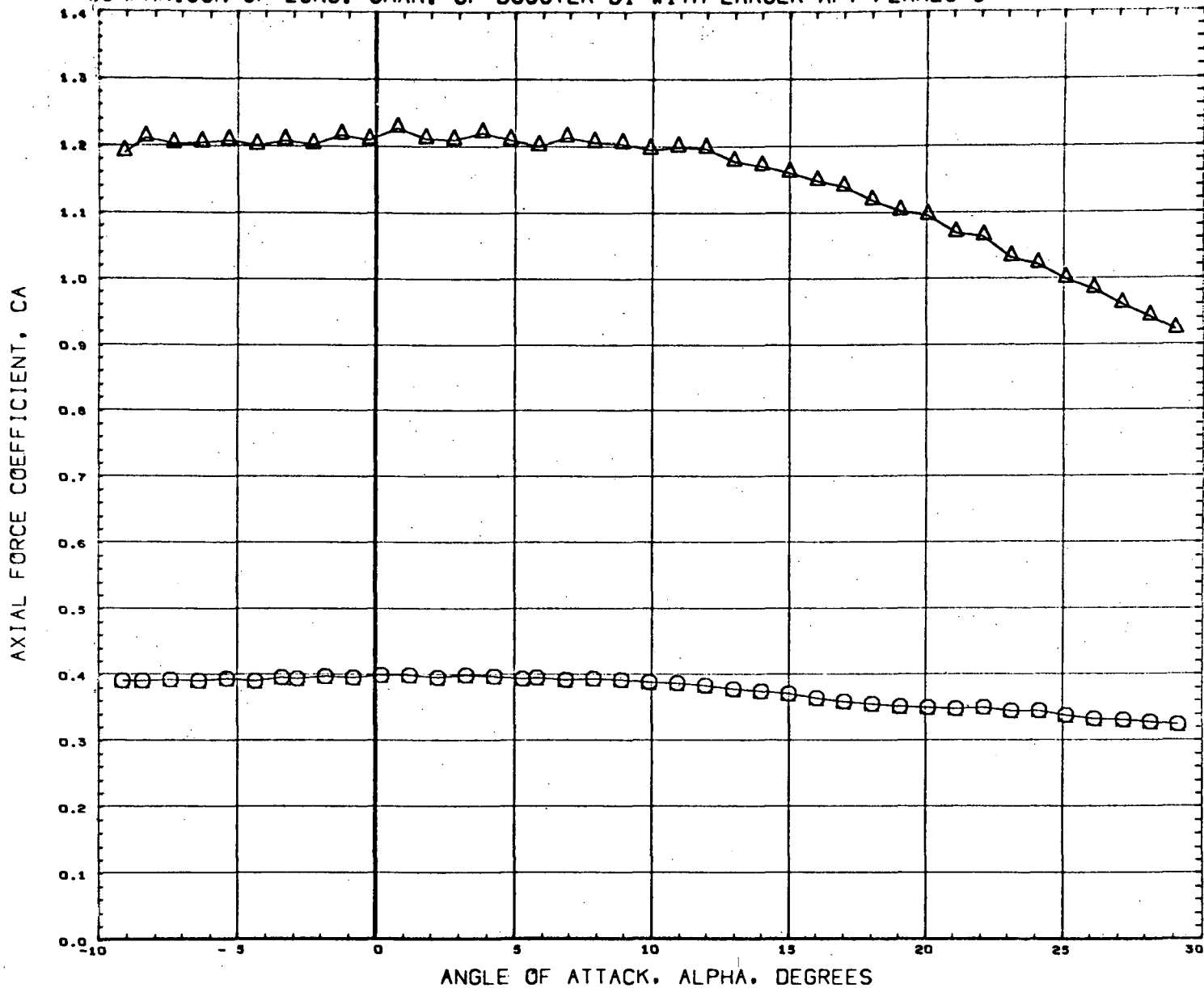
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE



MACH 4.47

PAGE 460

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7806)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA
 0.000
 0.000

REFERENCE INFORMATION

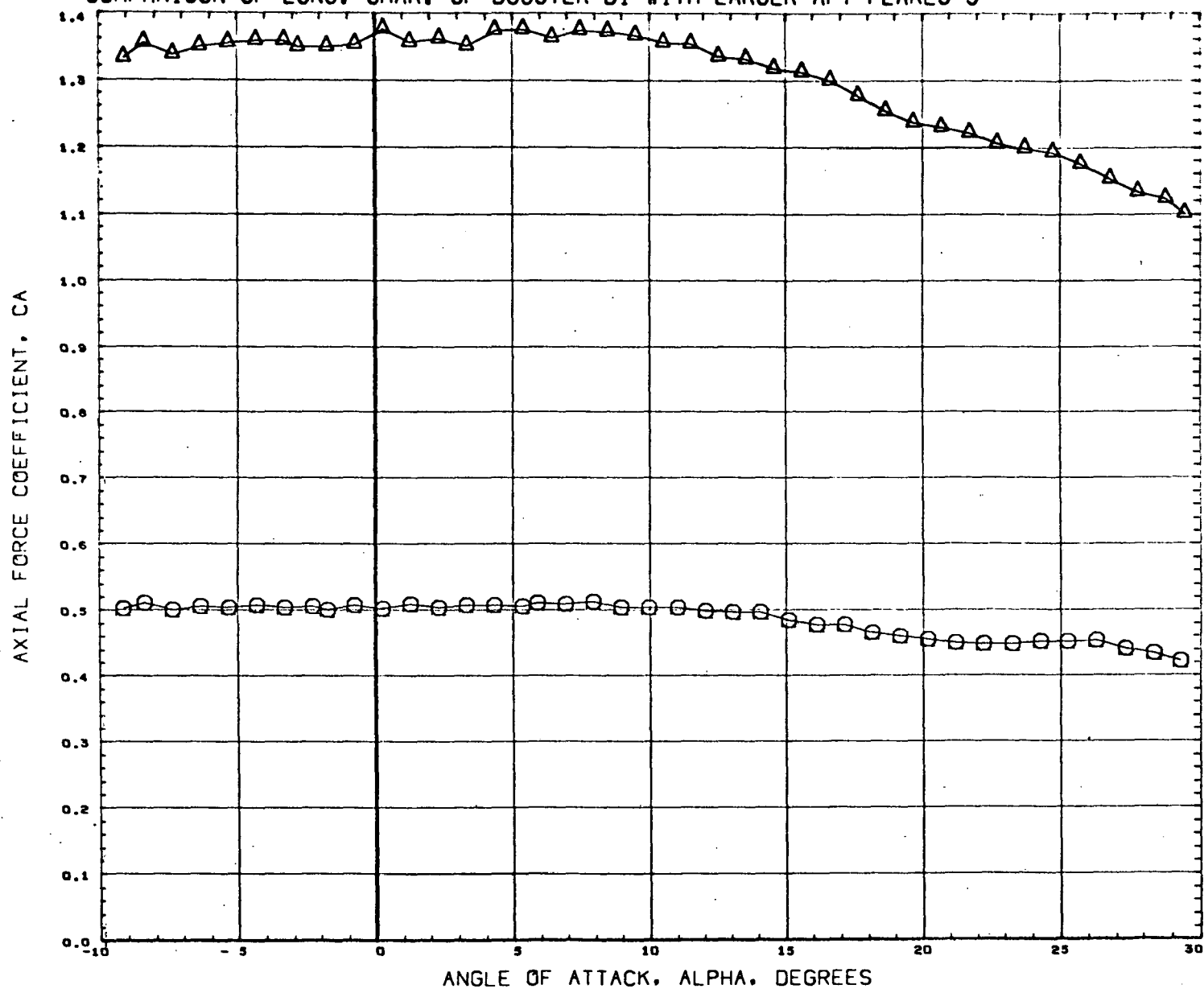
SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH

.65

PAGE 461

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA
 0.000
 0.000

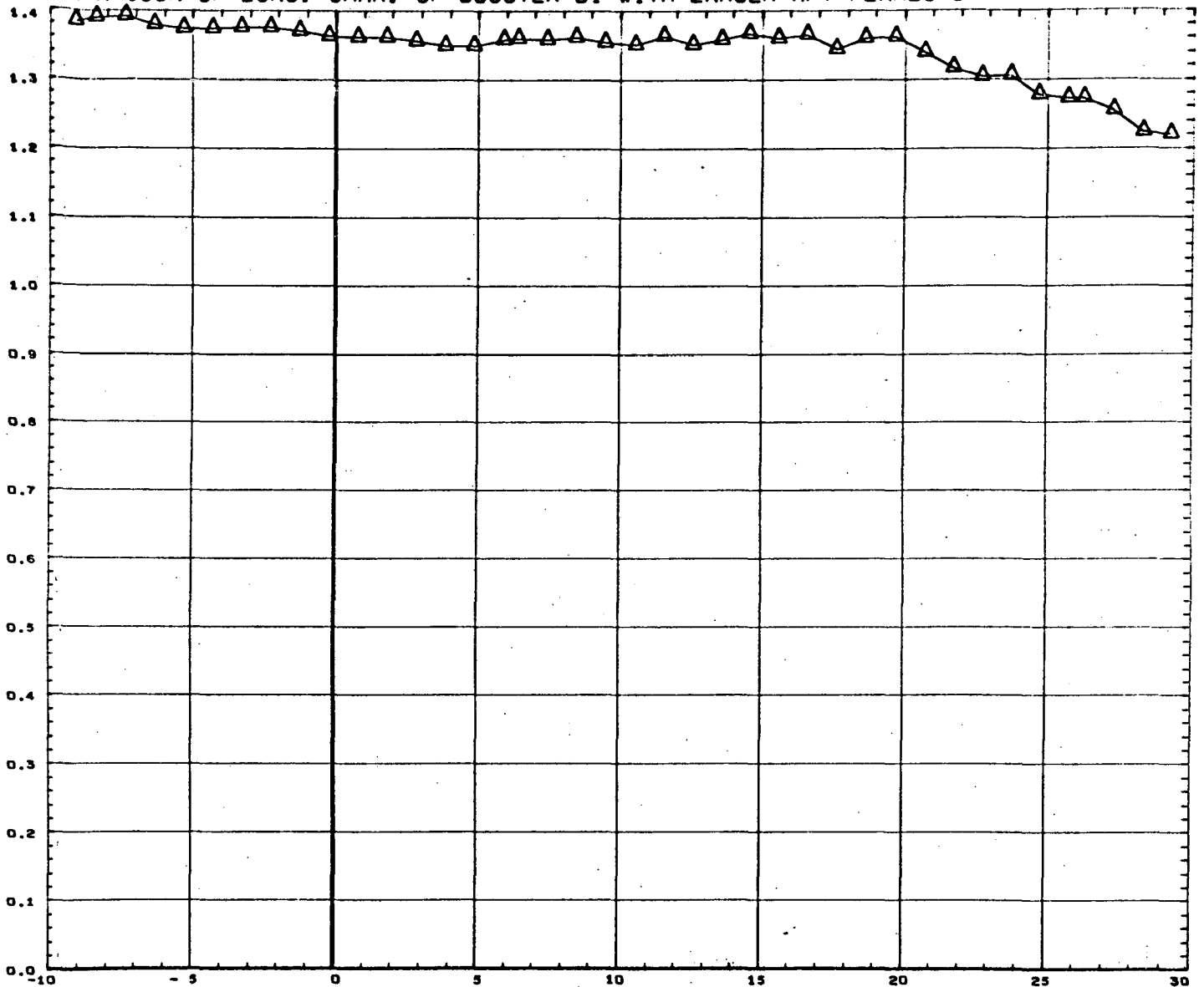
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .95

PAGE 462

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S

AXIAL FORCE COEFFICIENT, CA



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

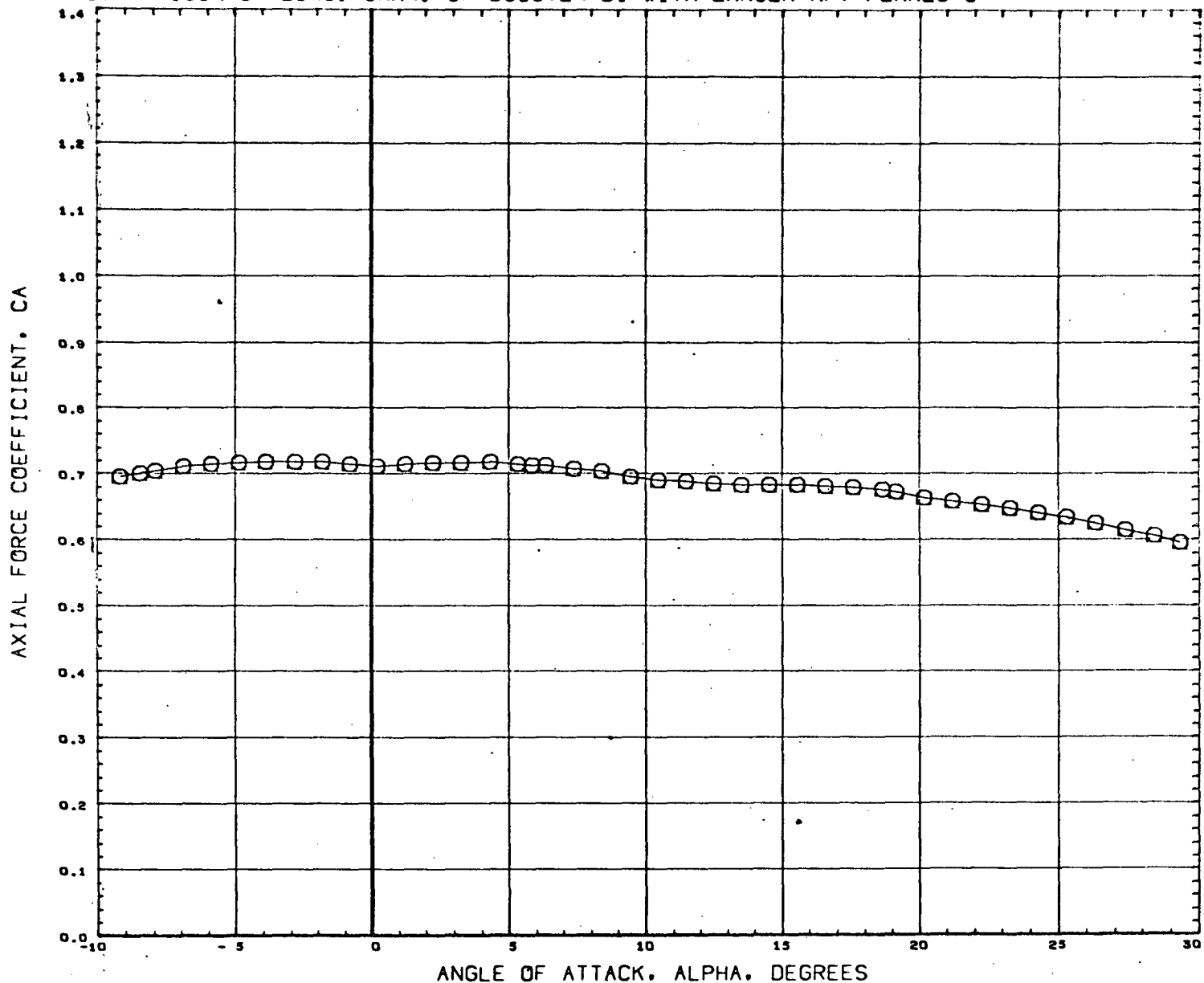
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 463

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

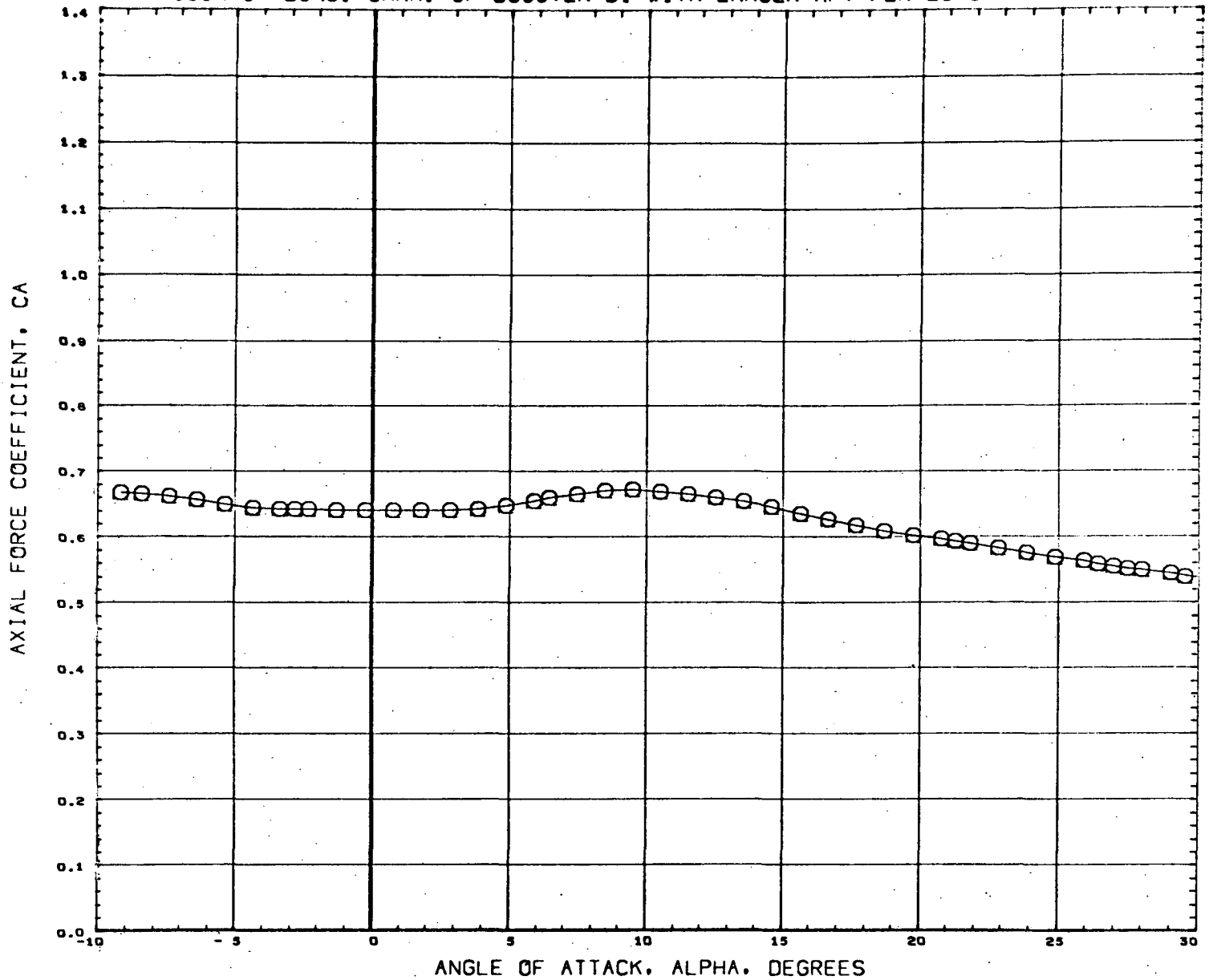
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 464

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

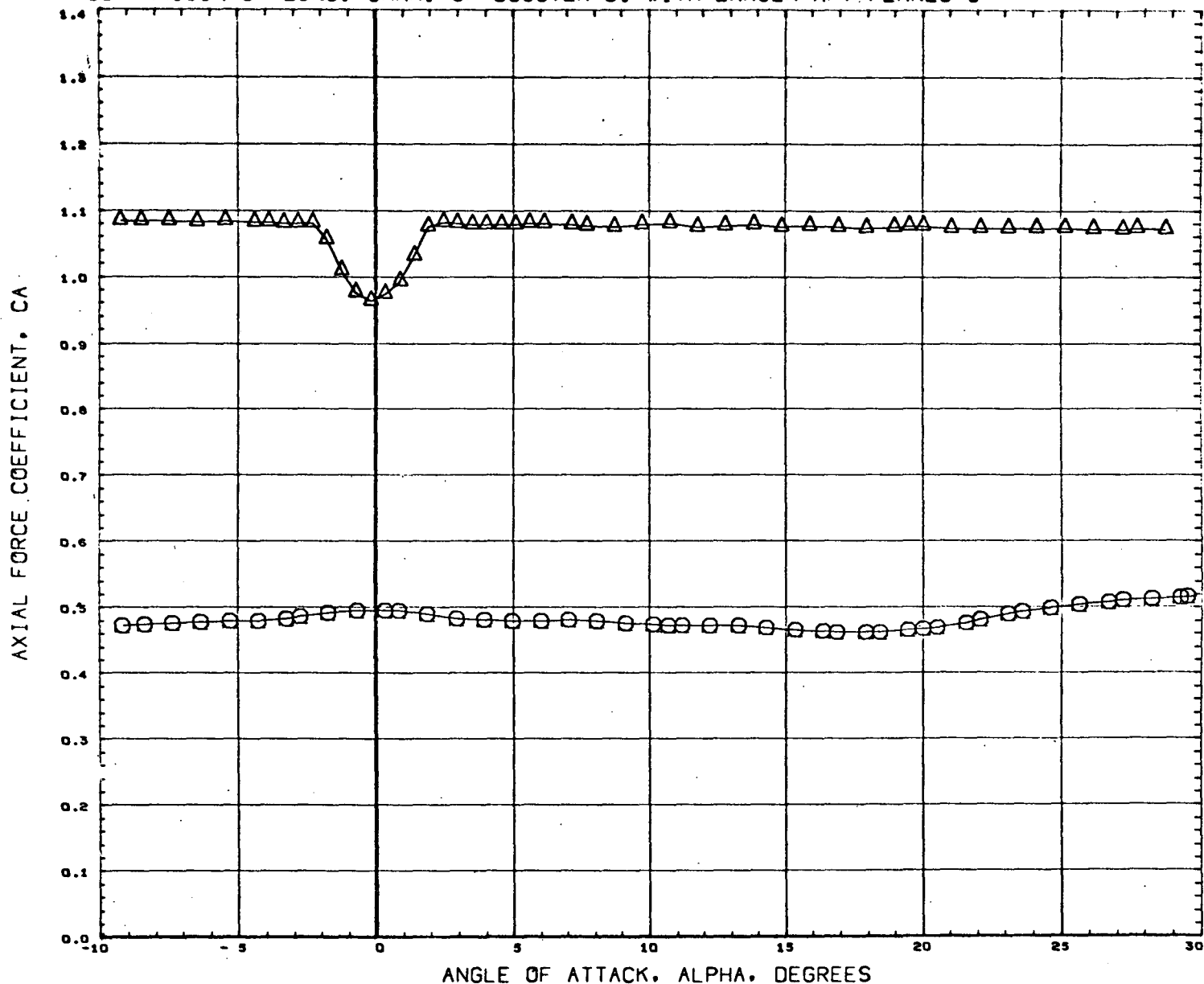
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 682.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 465

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

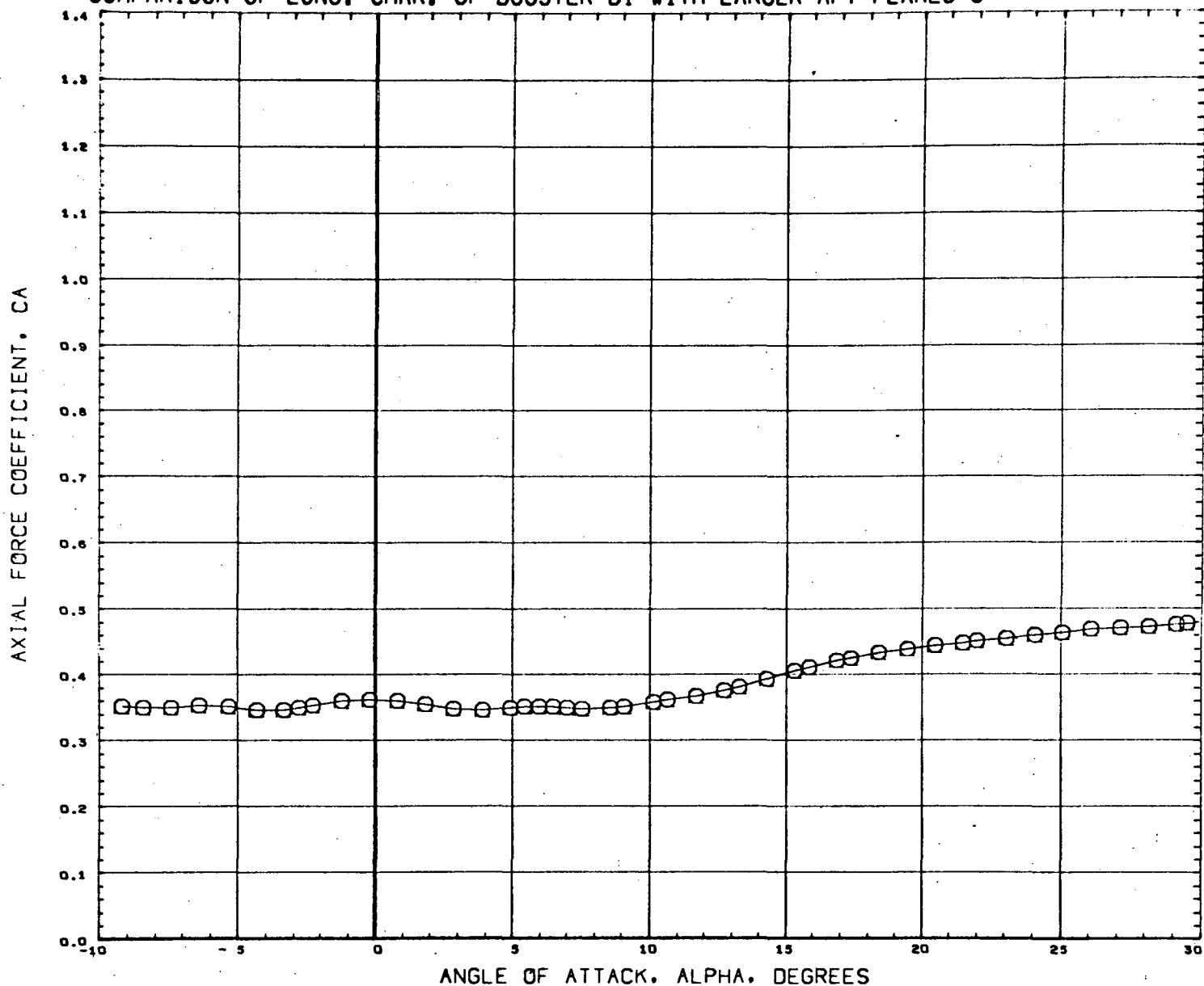
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 466

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ DATA NOT AVAILABLE FOR ALL CONDITIONS

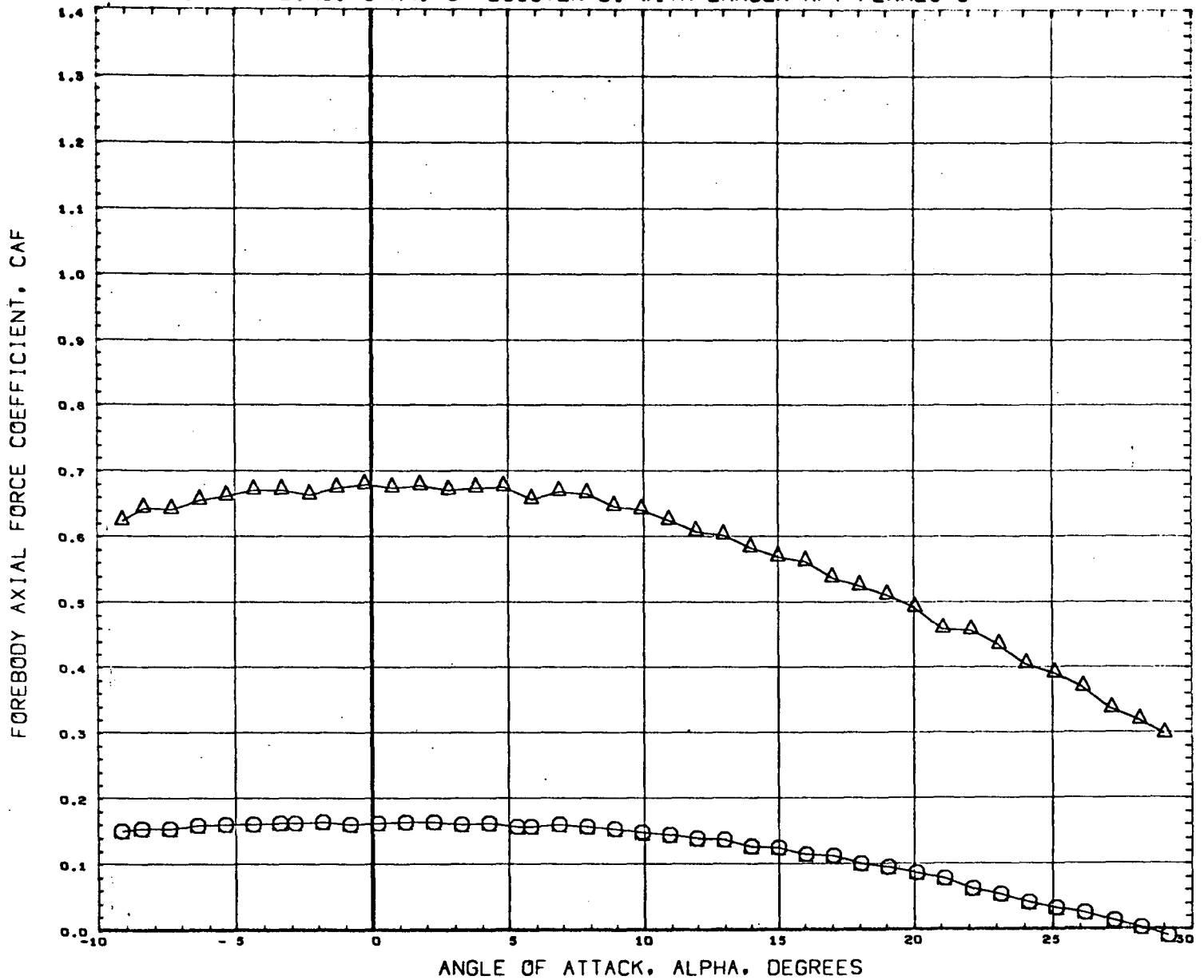
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 467

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA
 0.000
 0.000

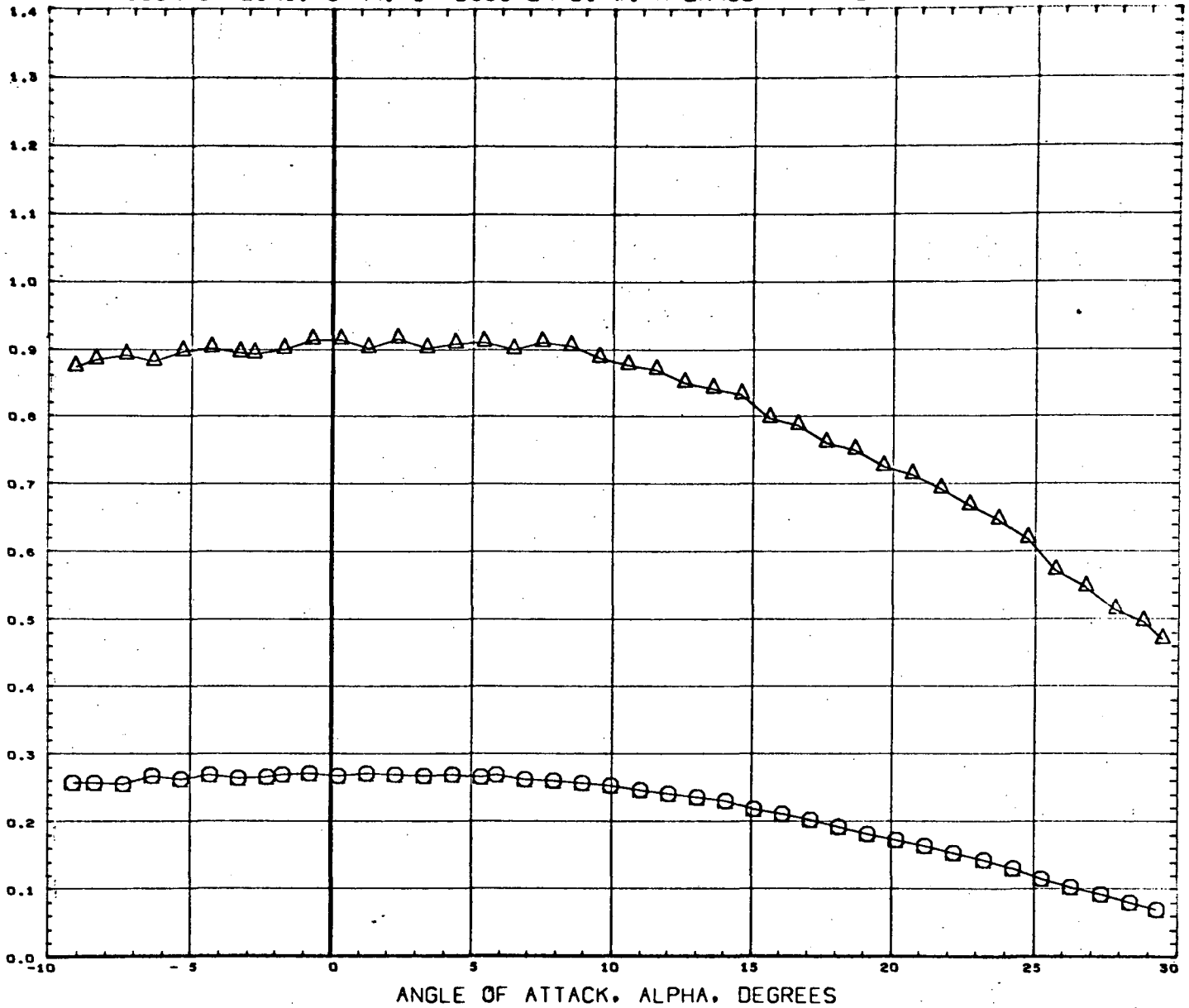
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .65

PAGE 468

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

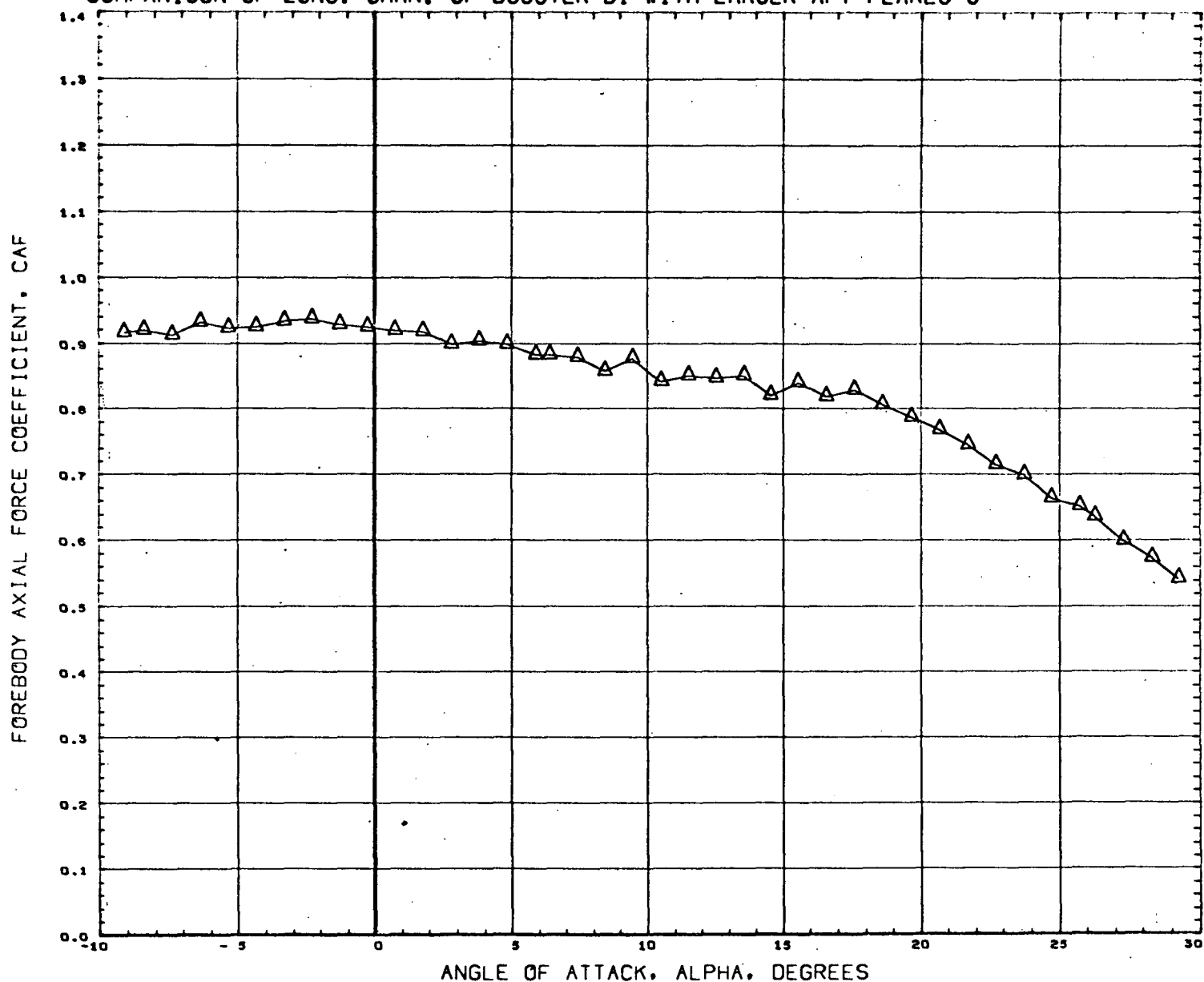
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .95

PAGE 469

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \square DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) \triangle MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

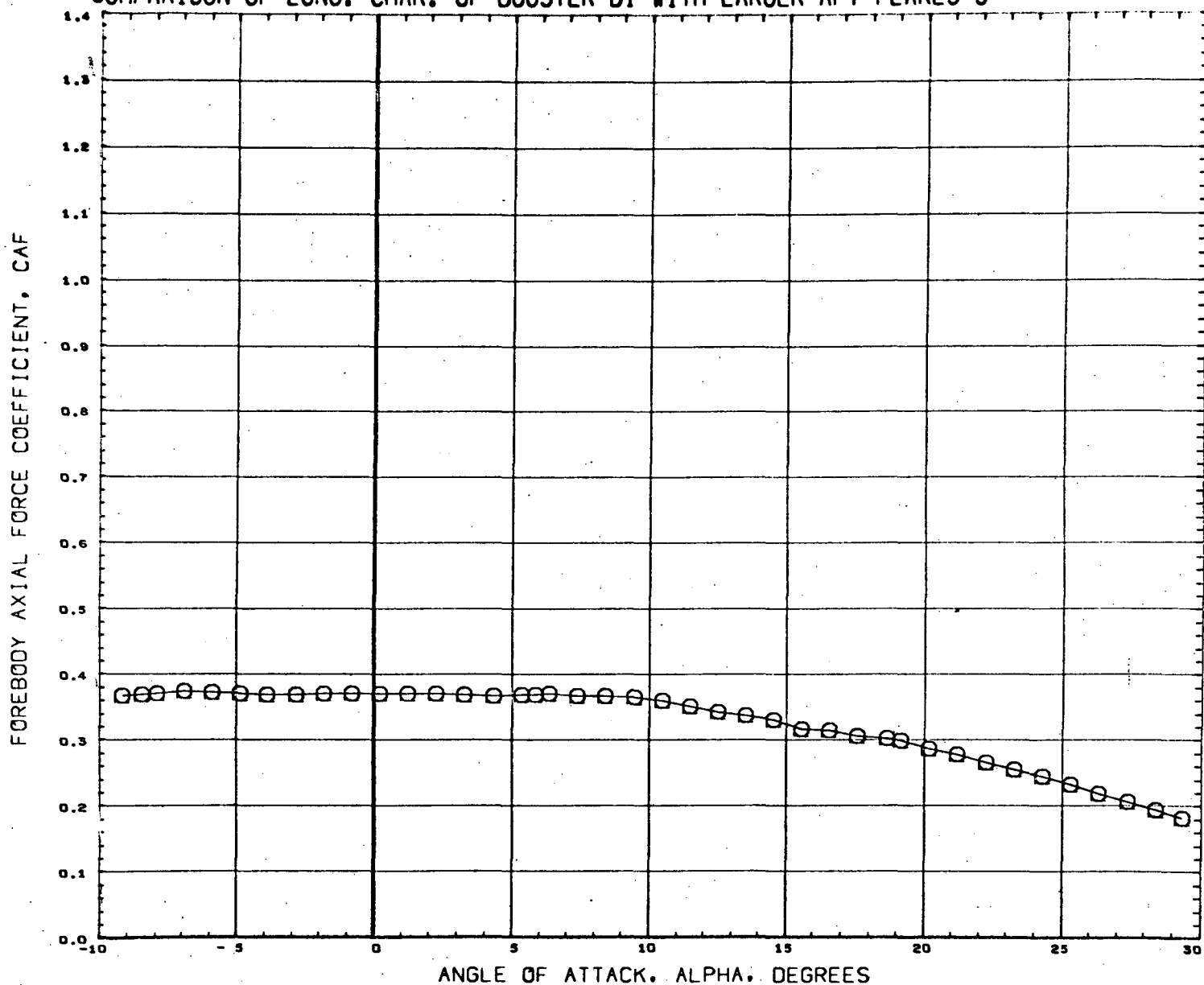
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 470

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

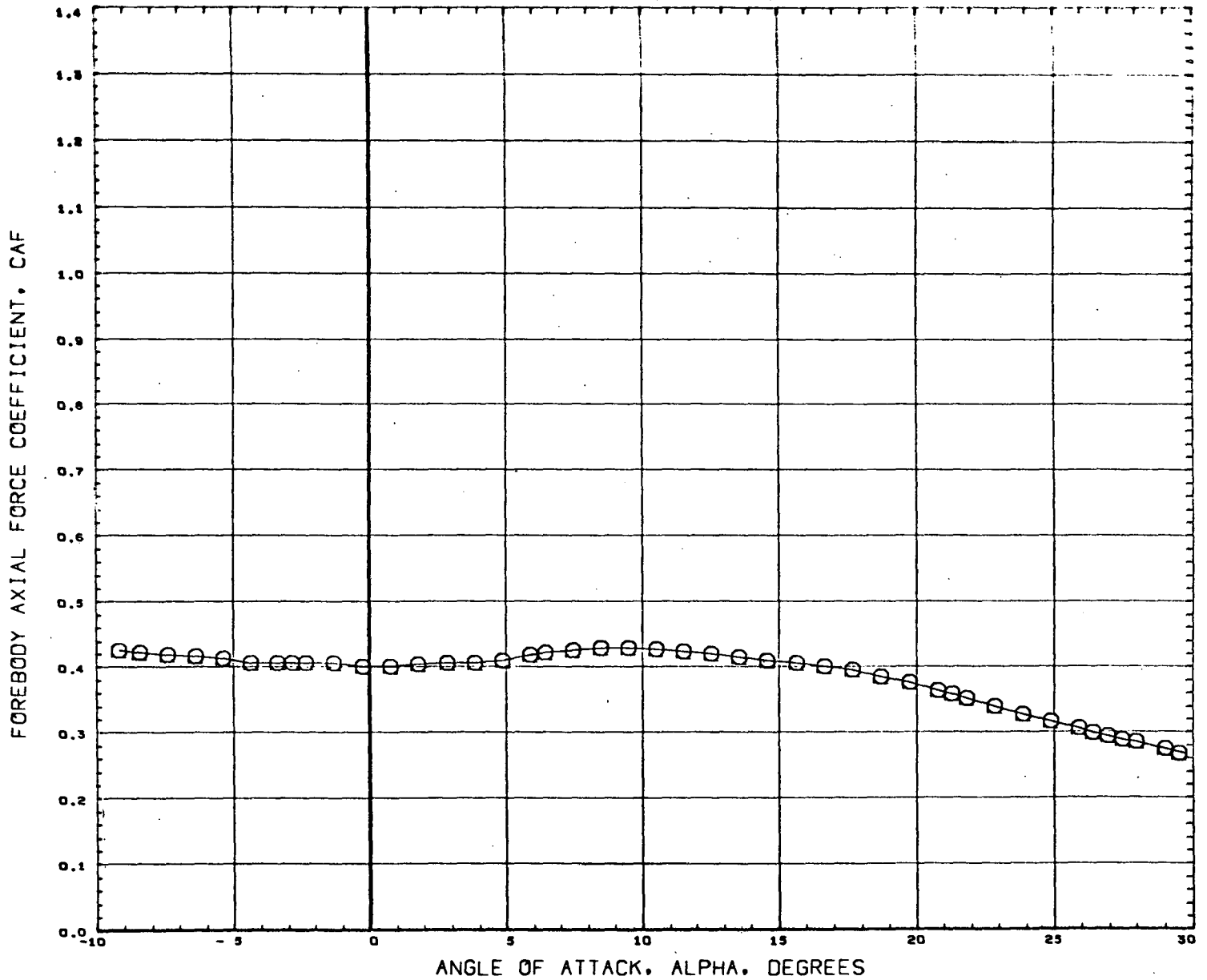
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 471

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA
 0.000
 0.000

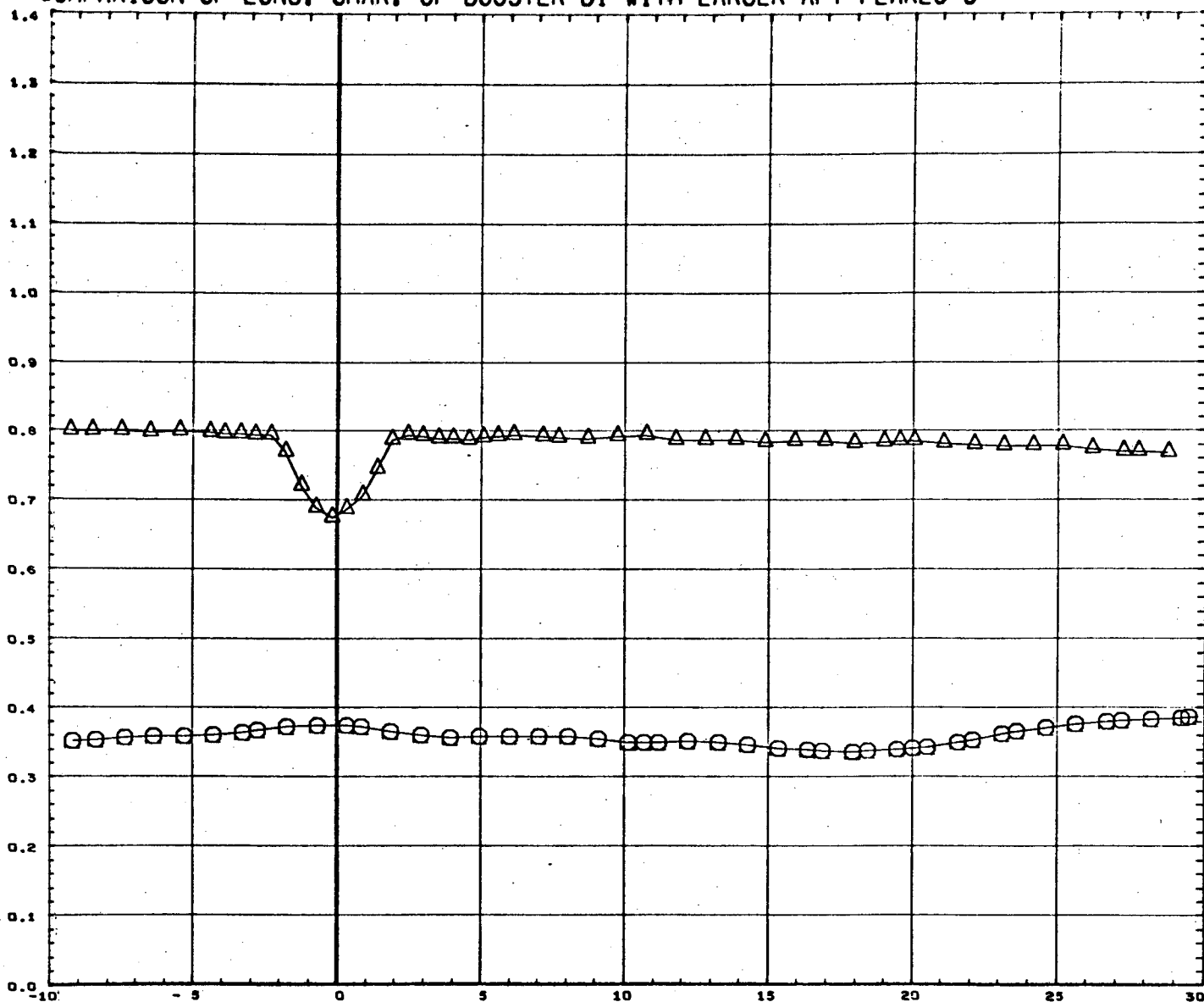
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 472


COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S

FOREBODY AXIAL FORCE COEFFICIENT, CAF



ANGLE OF ATTACK, ALPHA, DEGREES

DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7806)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1

(CD7807)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA

0.000

0.000

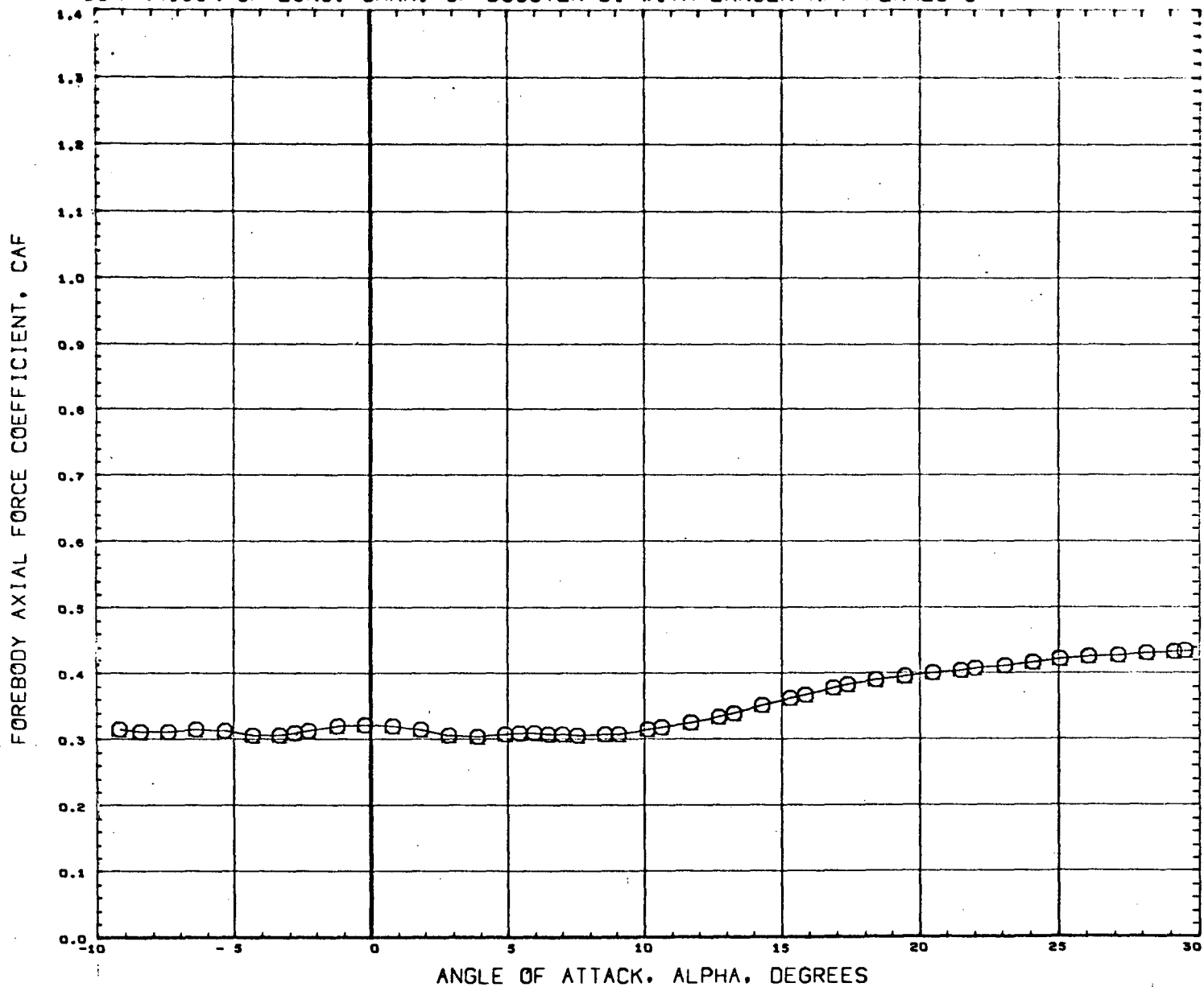
REFERENCE INFORMATION

SREF 3155.3040 SQ.FT.
LREF 609.5004 IN.
BREF 882.0004 IN.
XMRP 731.0004 IN.
YMRP 0.0000 IN.
ZMRP 0.0000 IN.
SCALE 0.0060 SCALE

MACH 2.50

PAGE 473

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

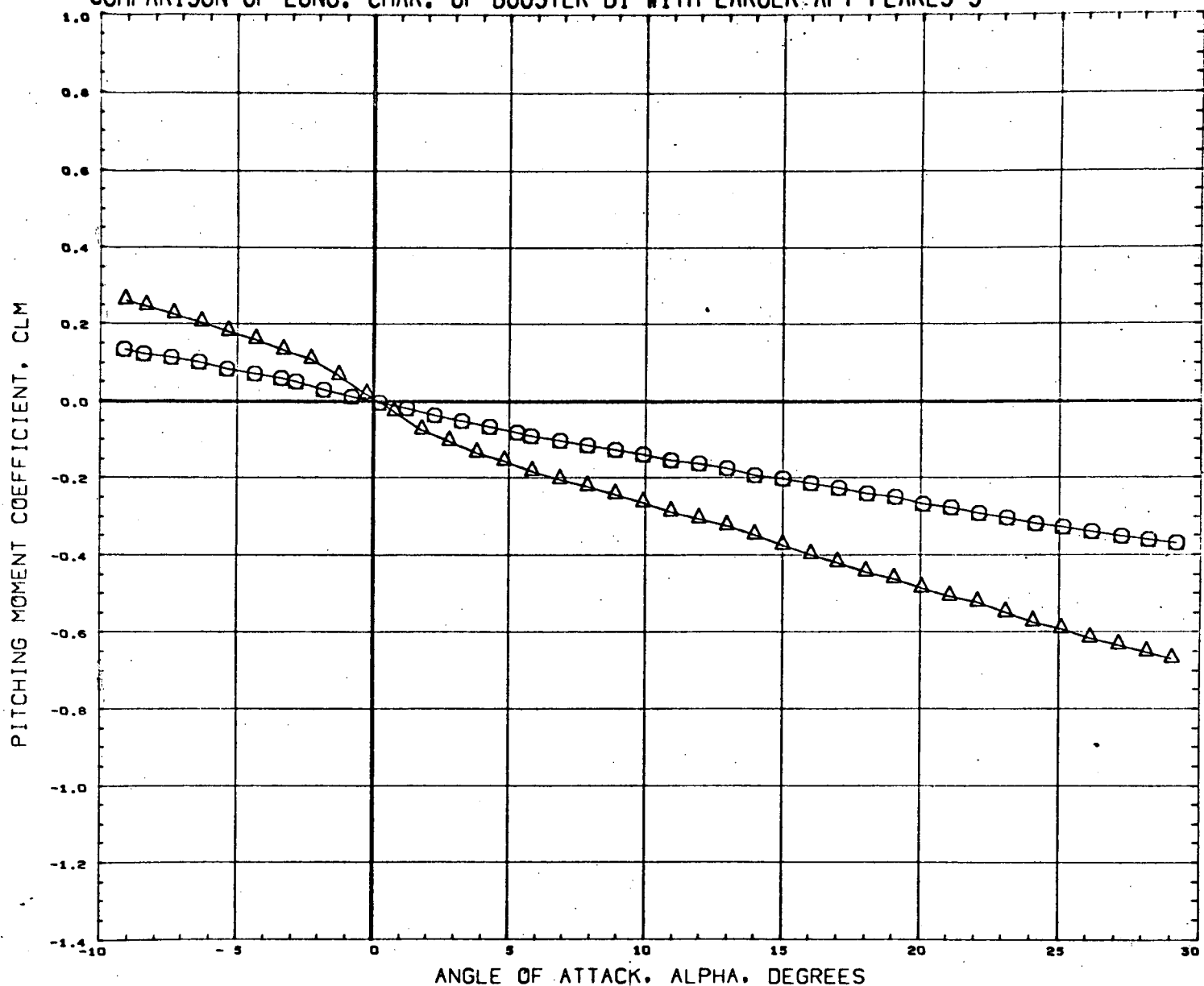
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 474

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

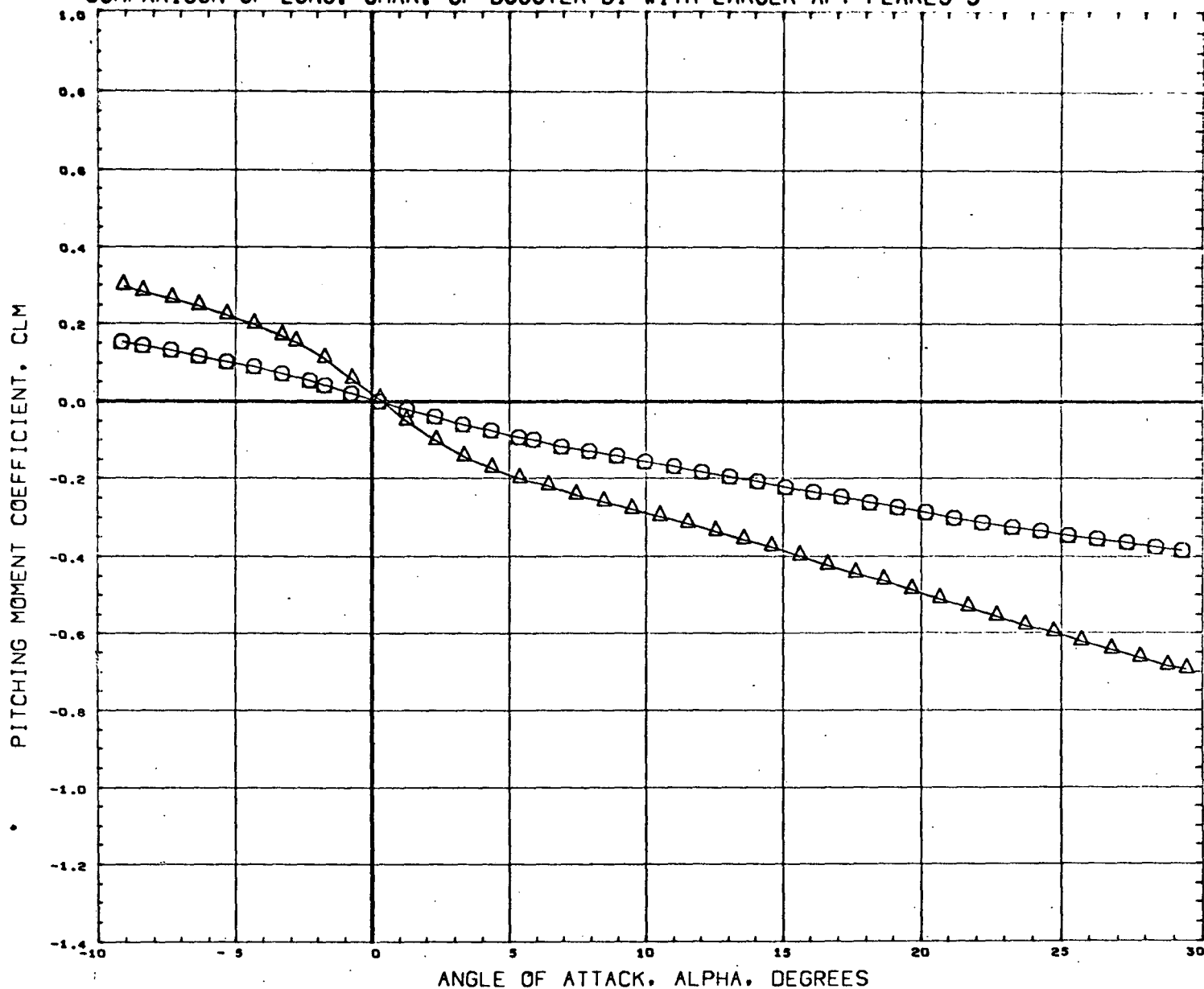
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .65

PAGE 475

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA

0.000
 0.000

REFERENCE INFORMATION

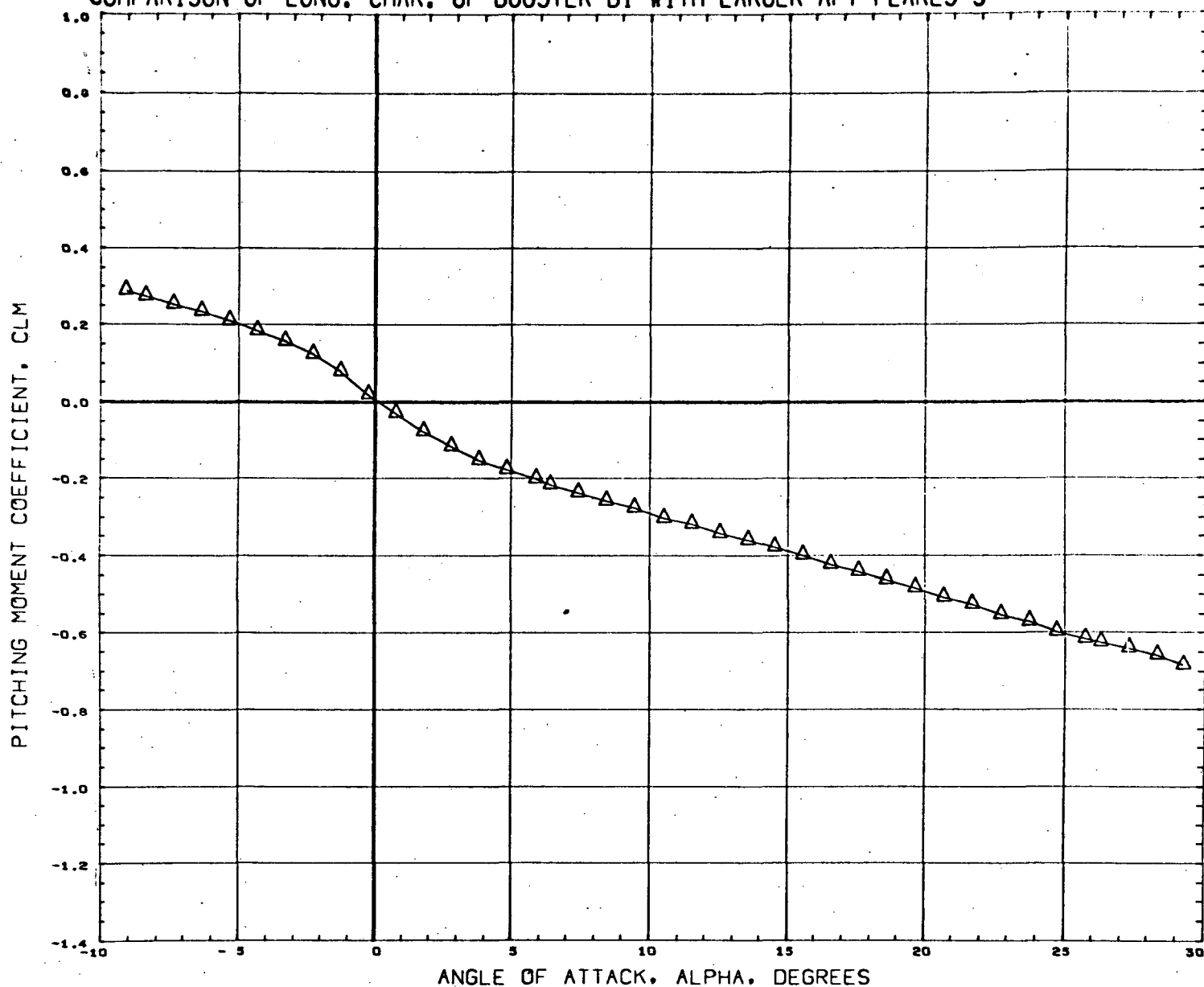
SREF 3155.3040 SQ. FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MAQH

.95

PAGE 476

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

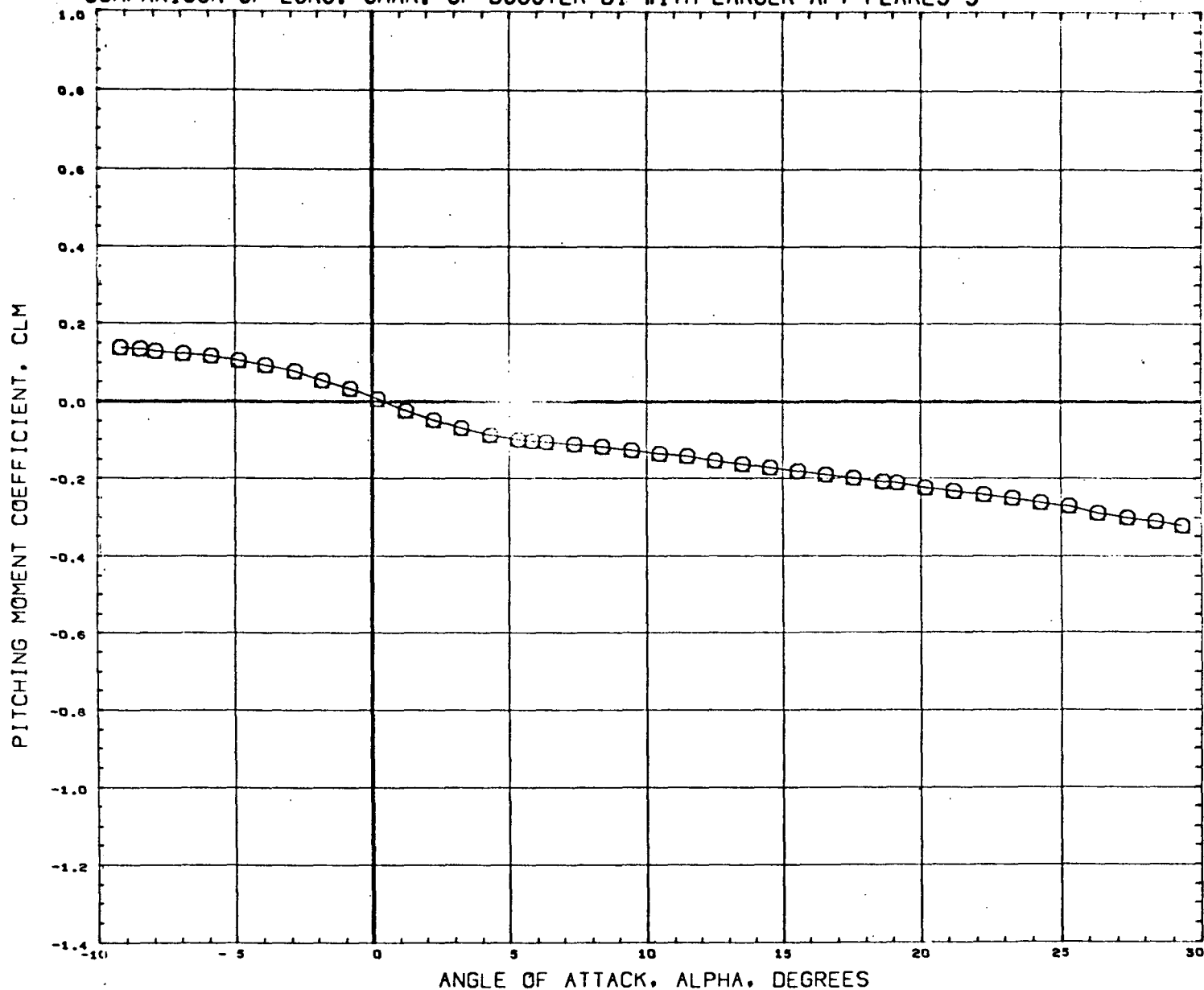
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 477

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

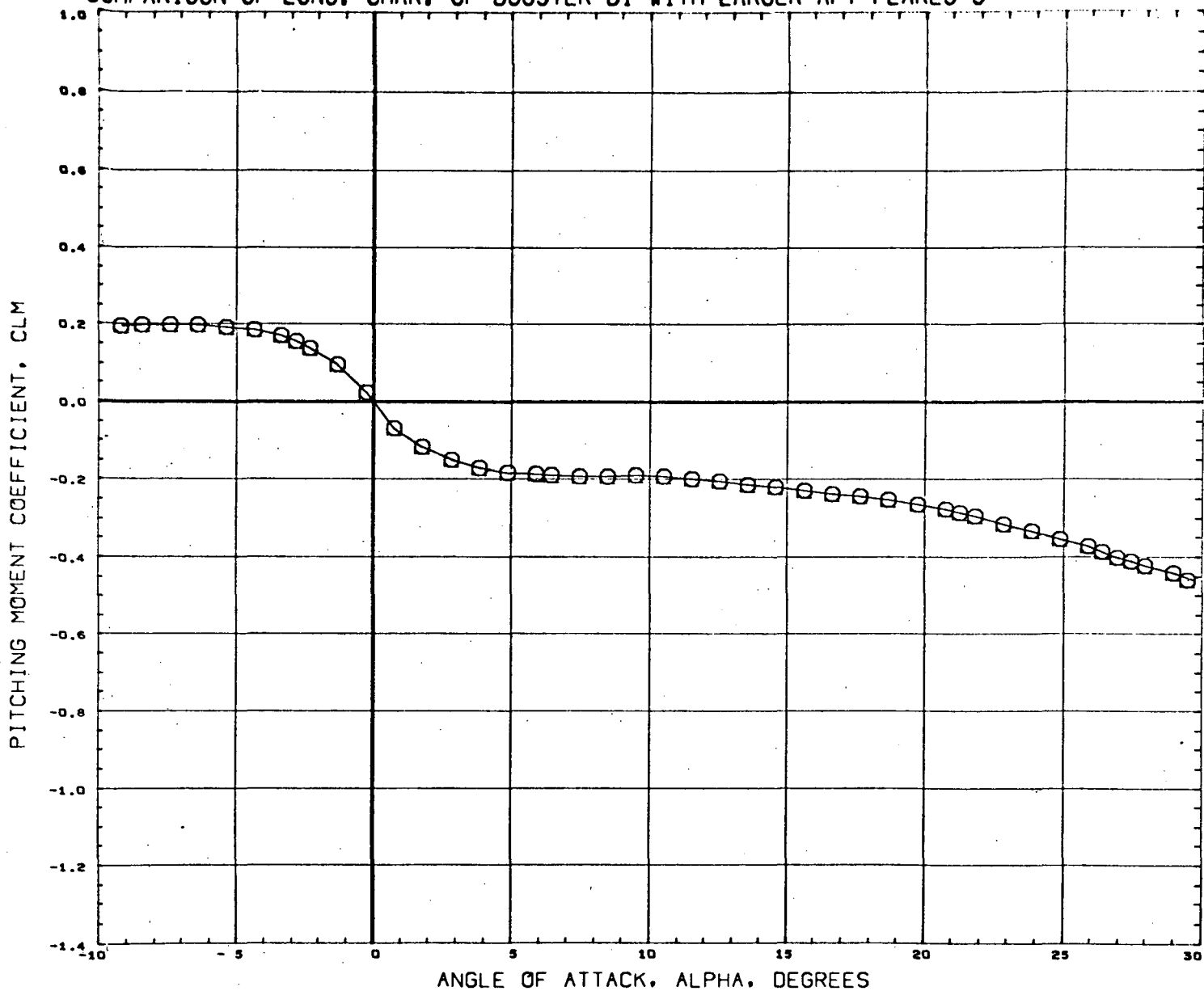
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 478

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

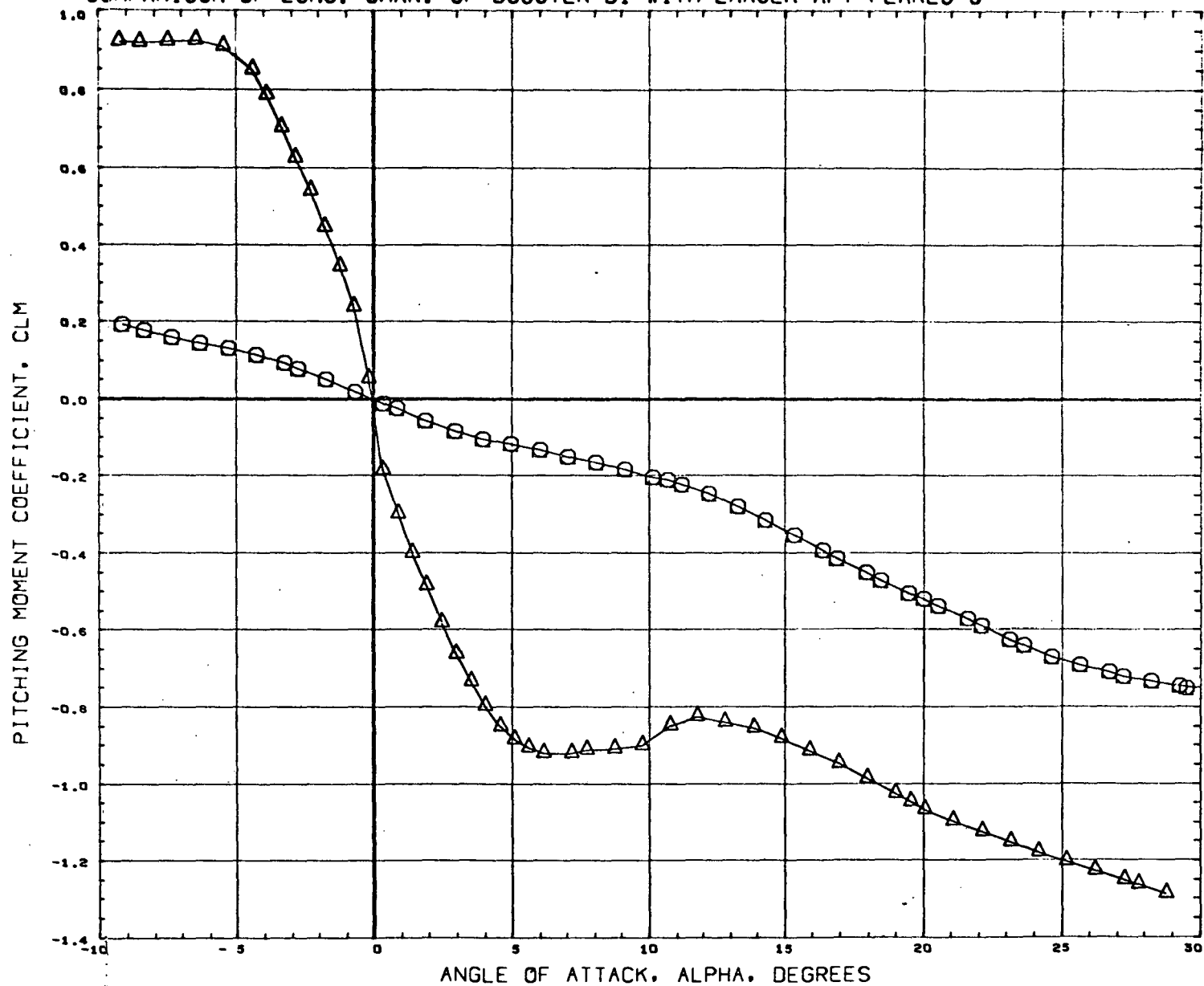
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 479

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

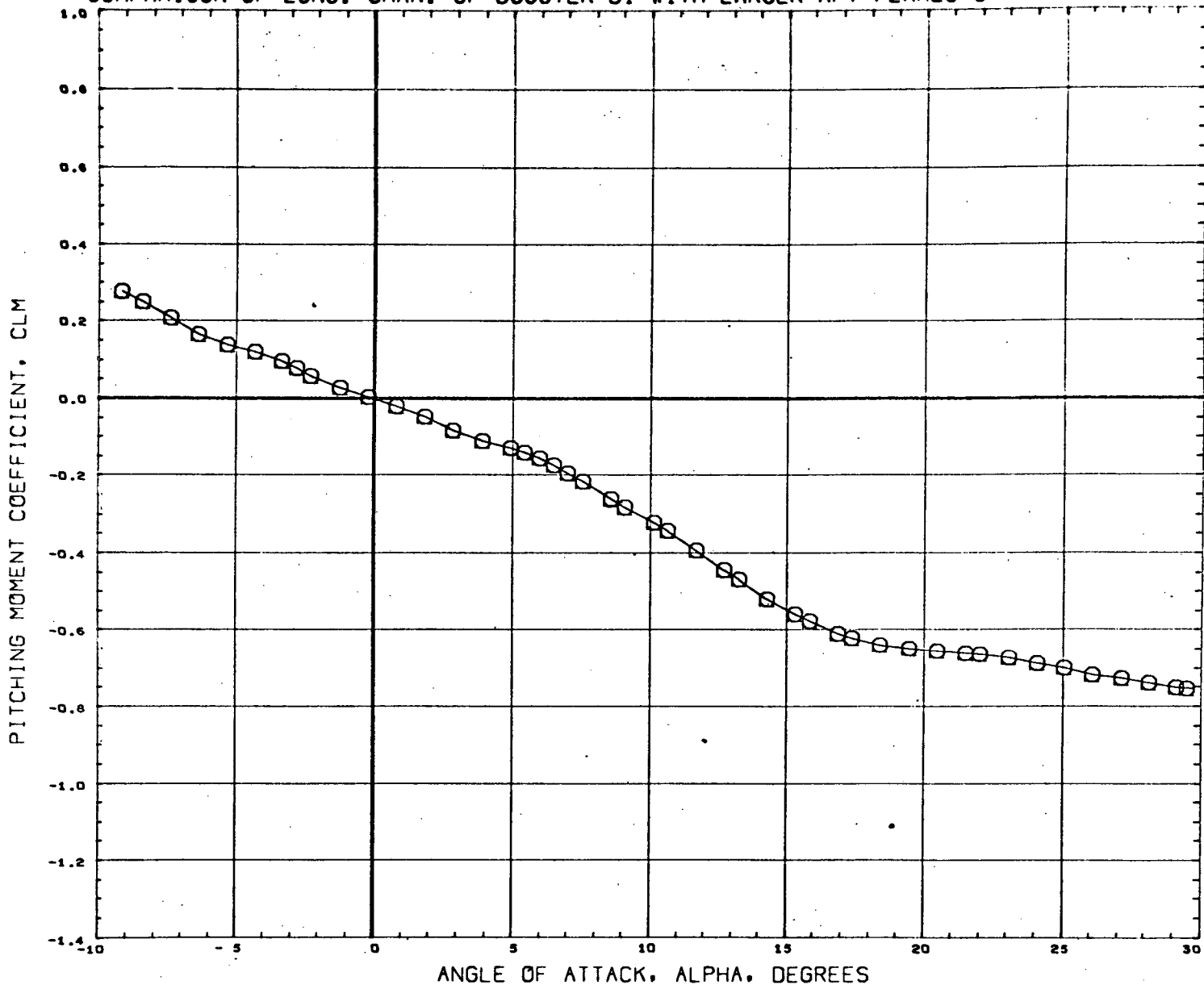
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 480

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \square MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS

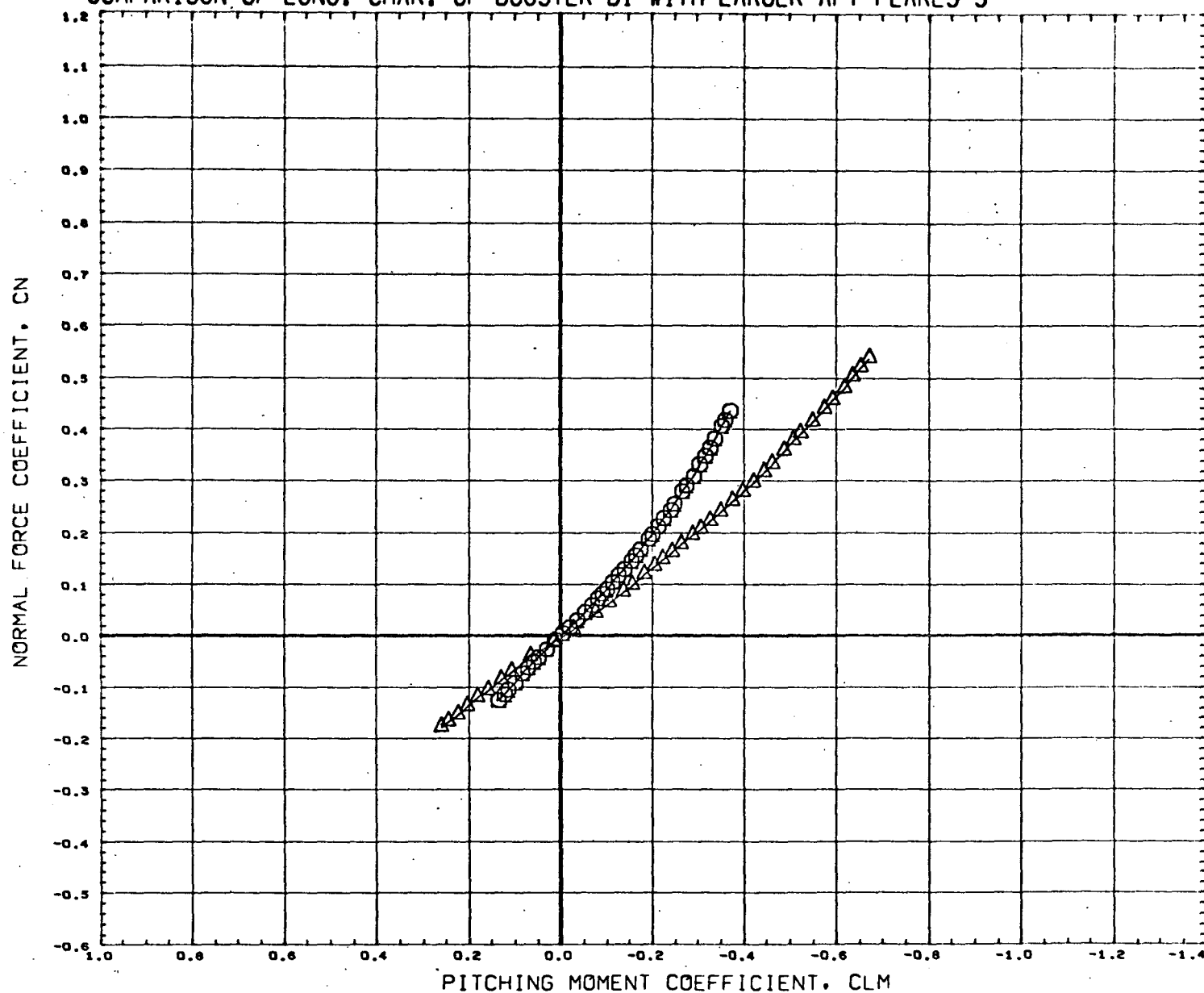
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 481

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(C07807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

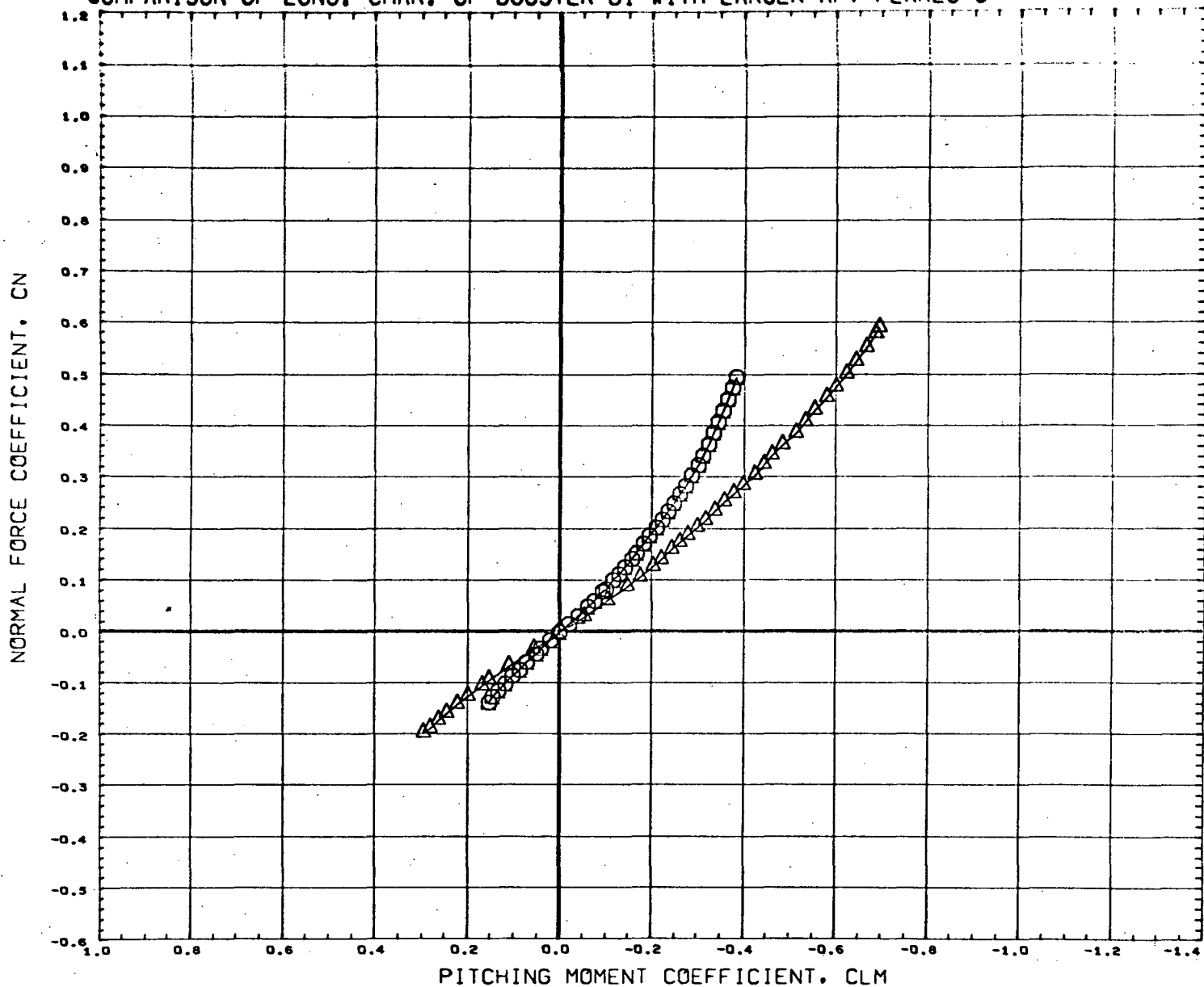
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 482

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA
 0.000
 0.000

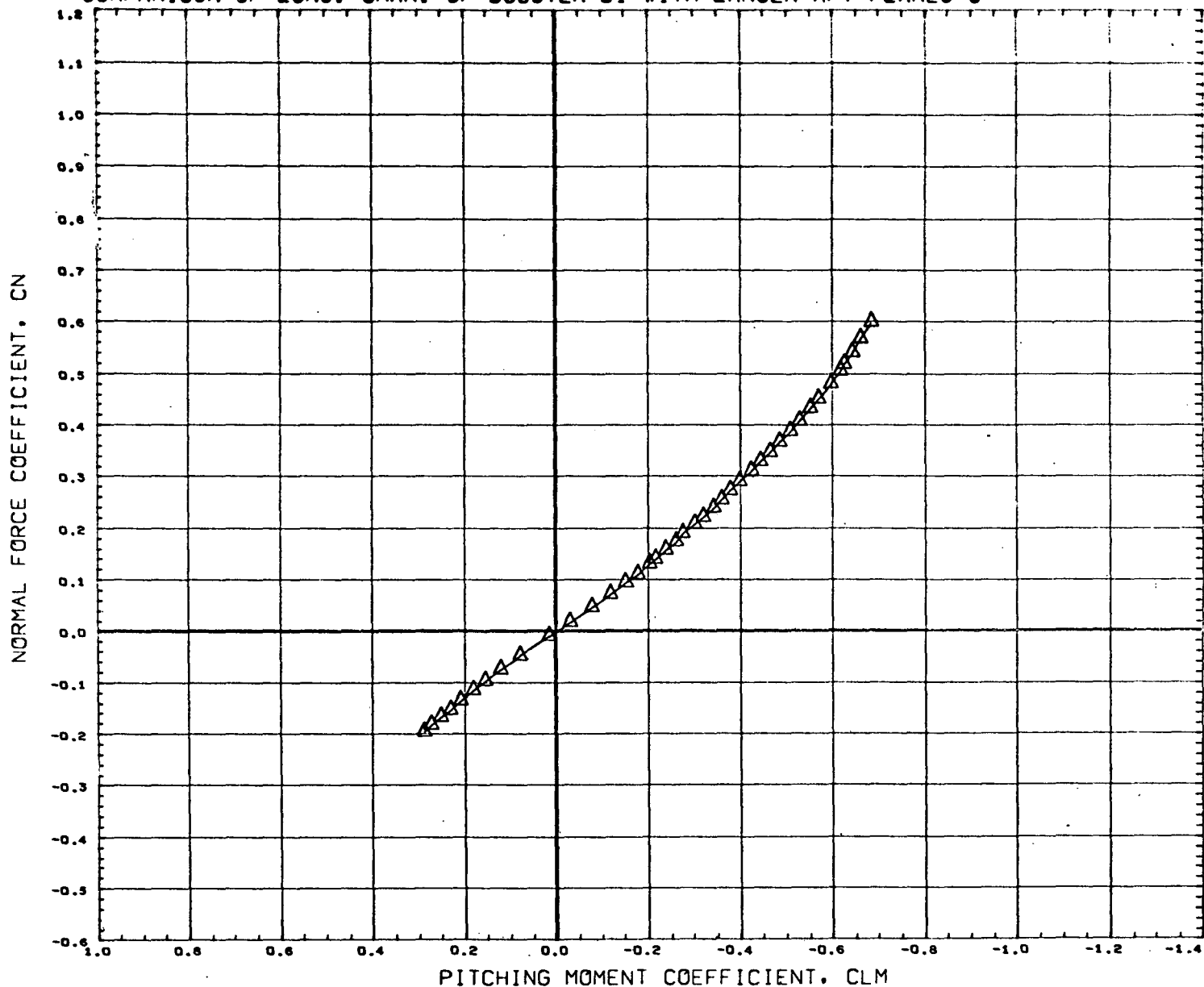
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH

.95

PAGE 483

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

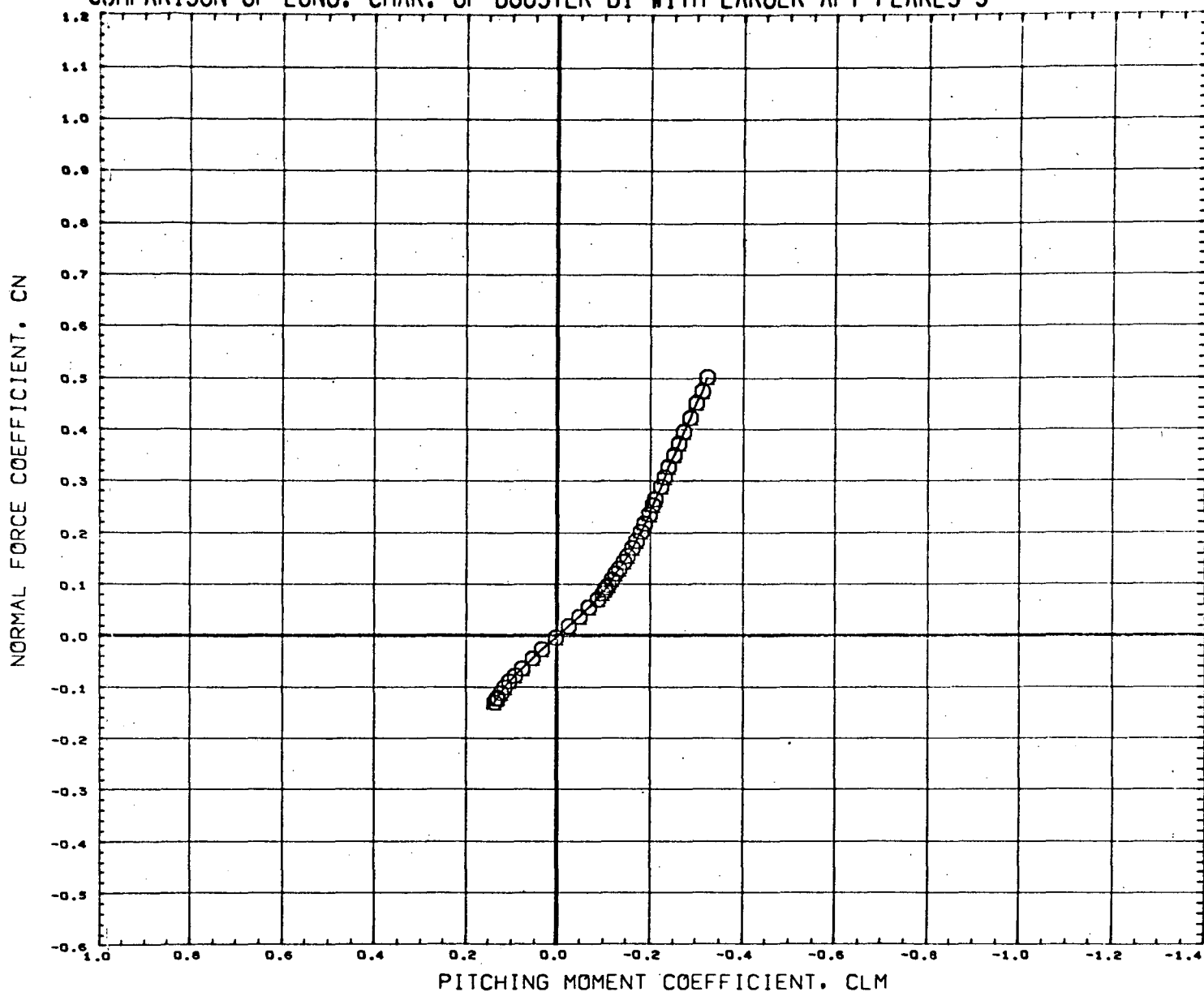
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 484

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \odot MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS

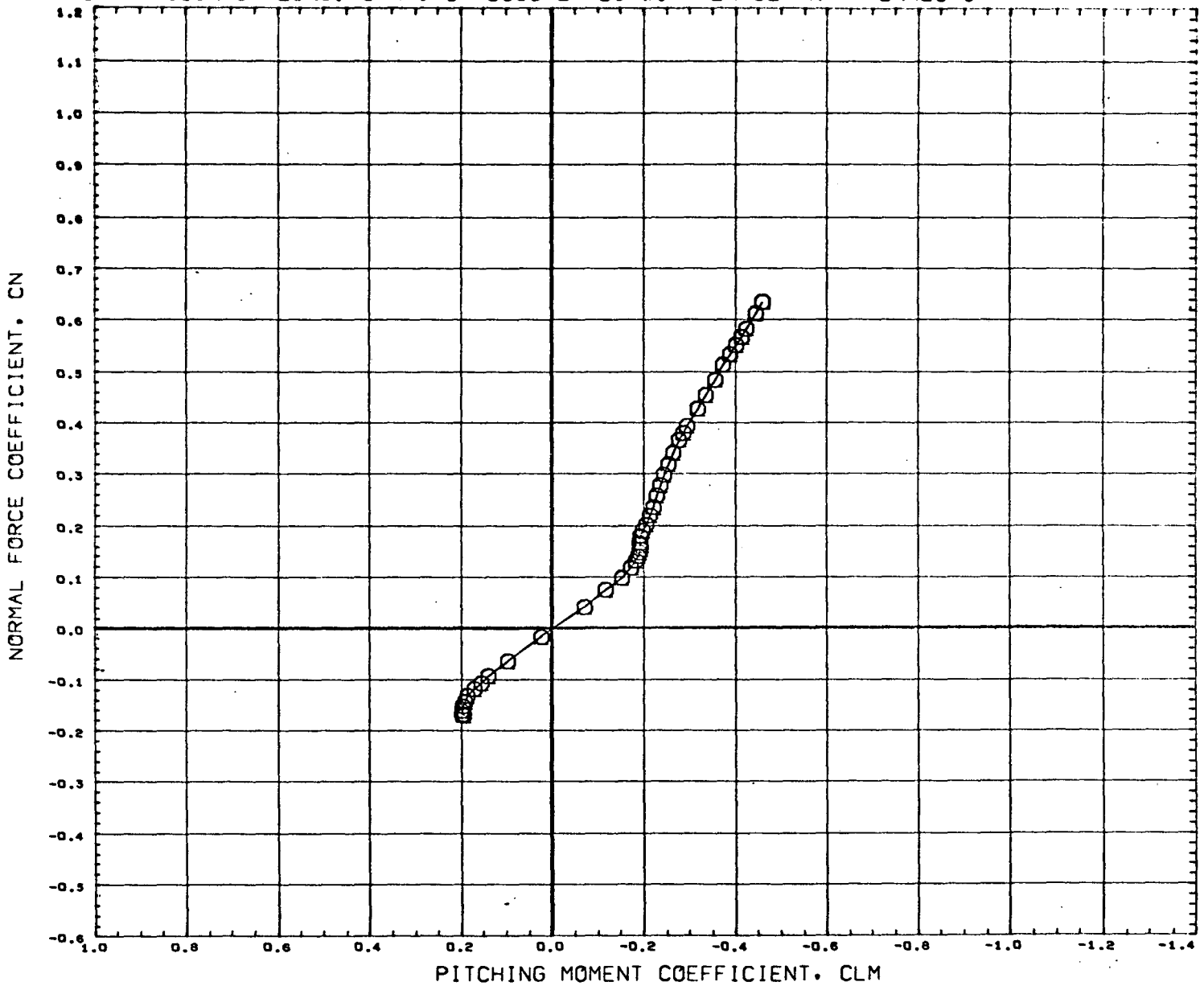
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 485

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA
 0.000
 0.000

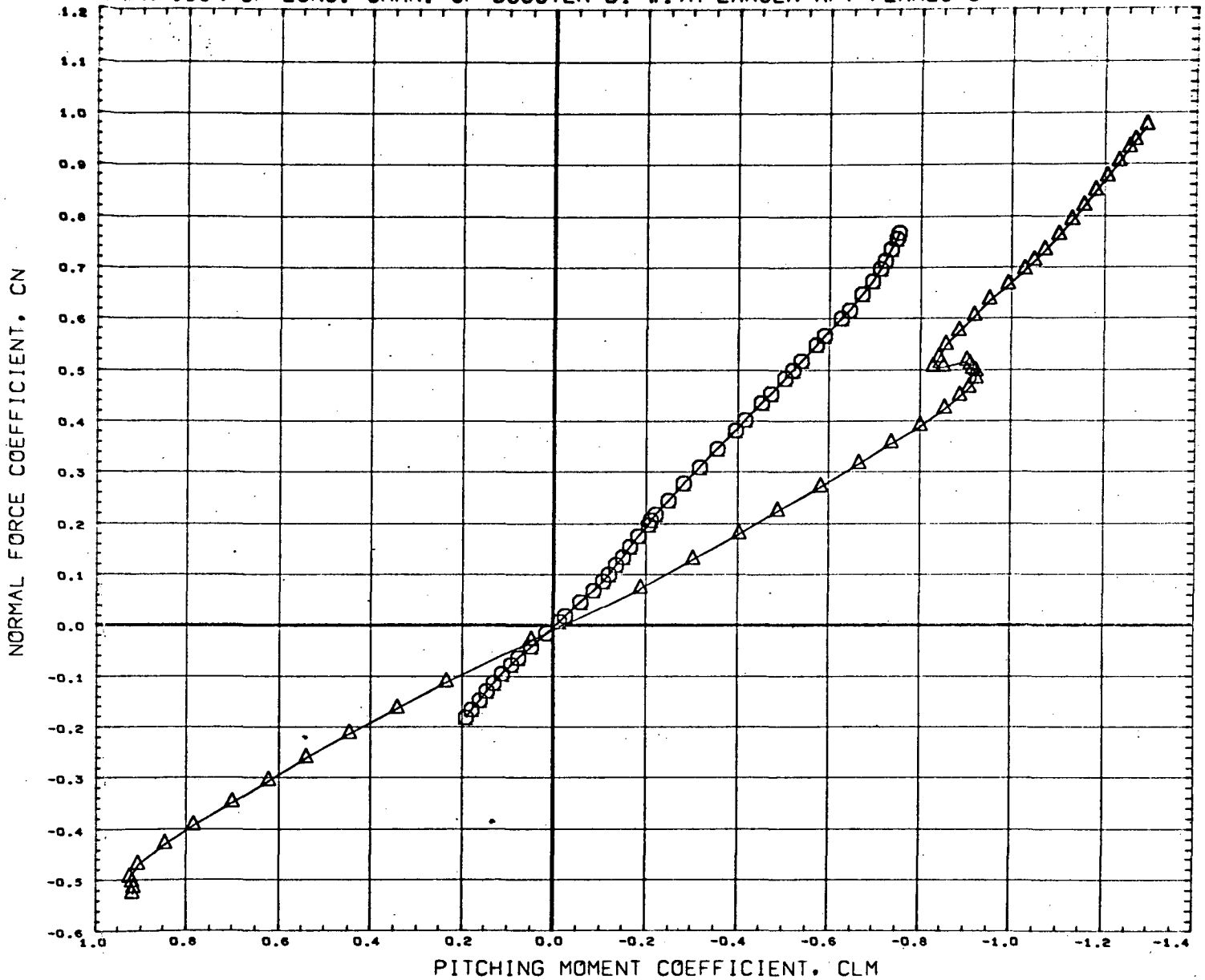
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 682.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH

1.51

PAGE 486

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

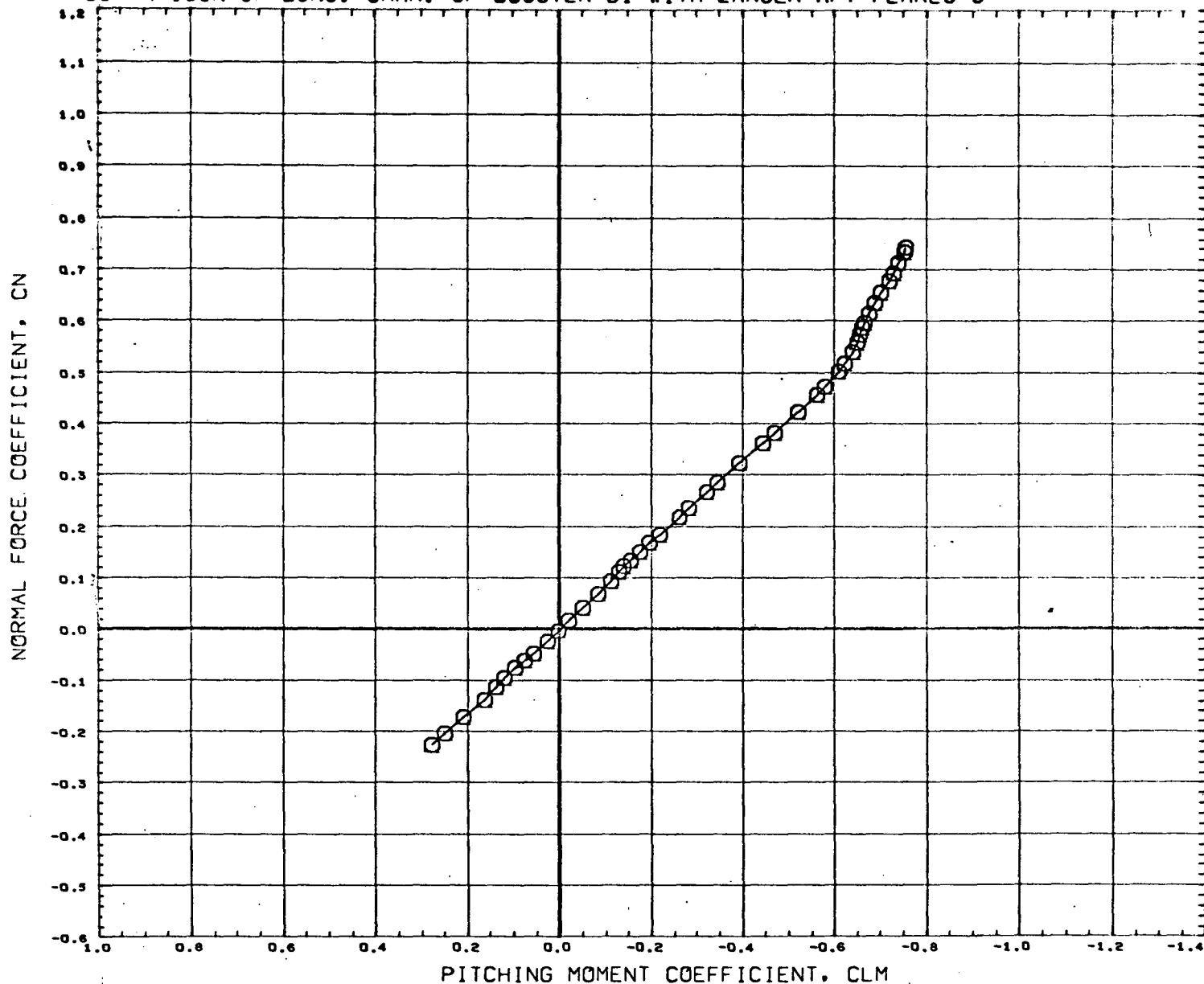
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRRP	731.0004	IN.
YMRRP	0.0000	IN.
ZMRRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 487

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

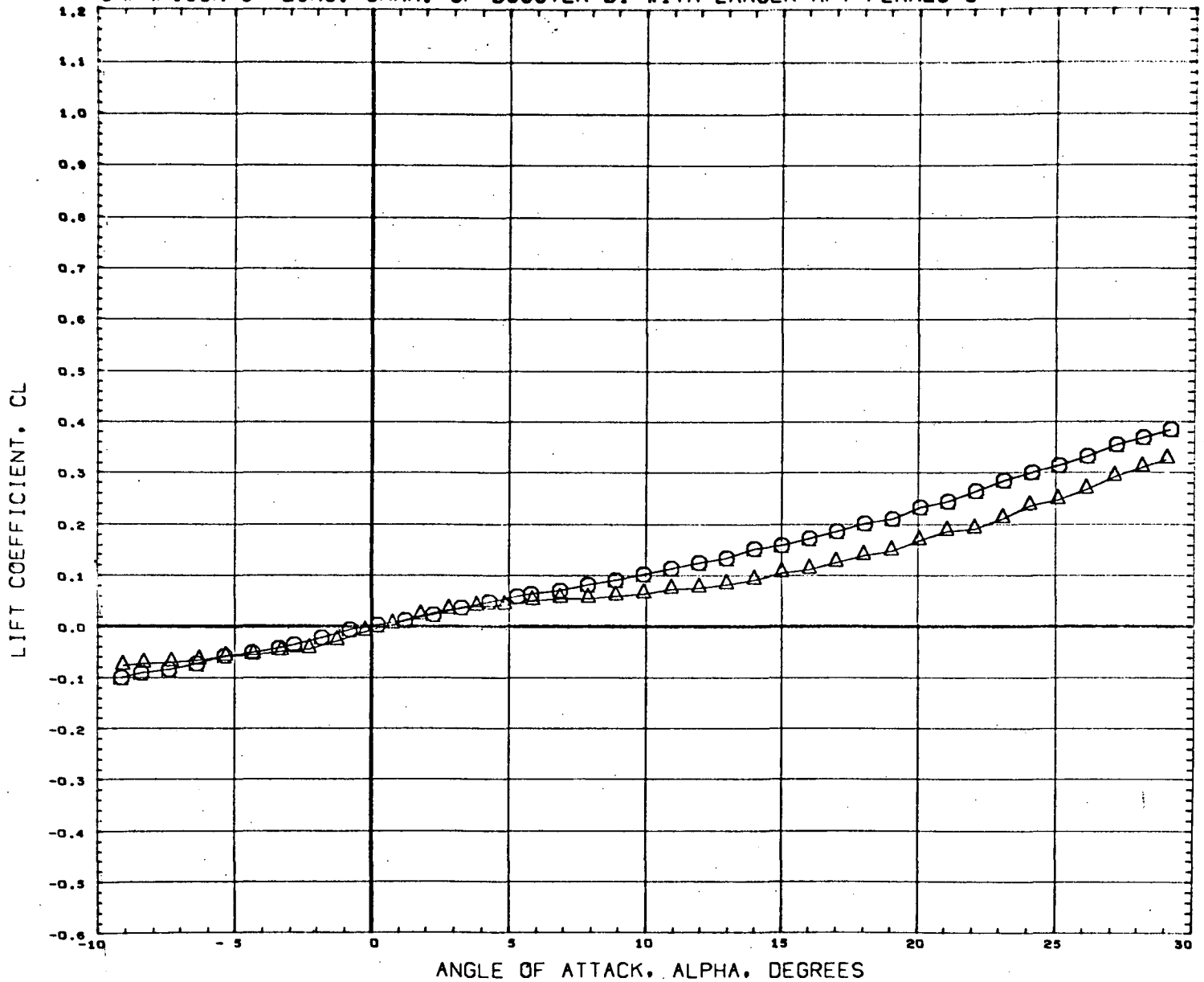
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 488

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



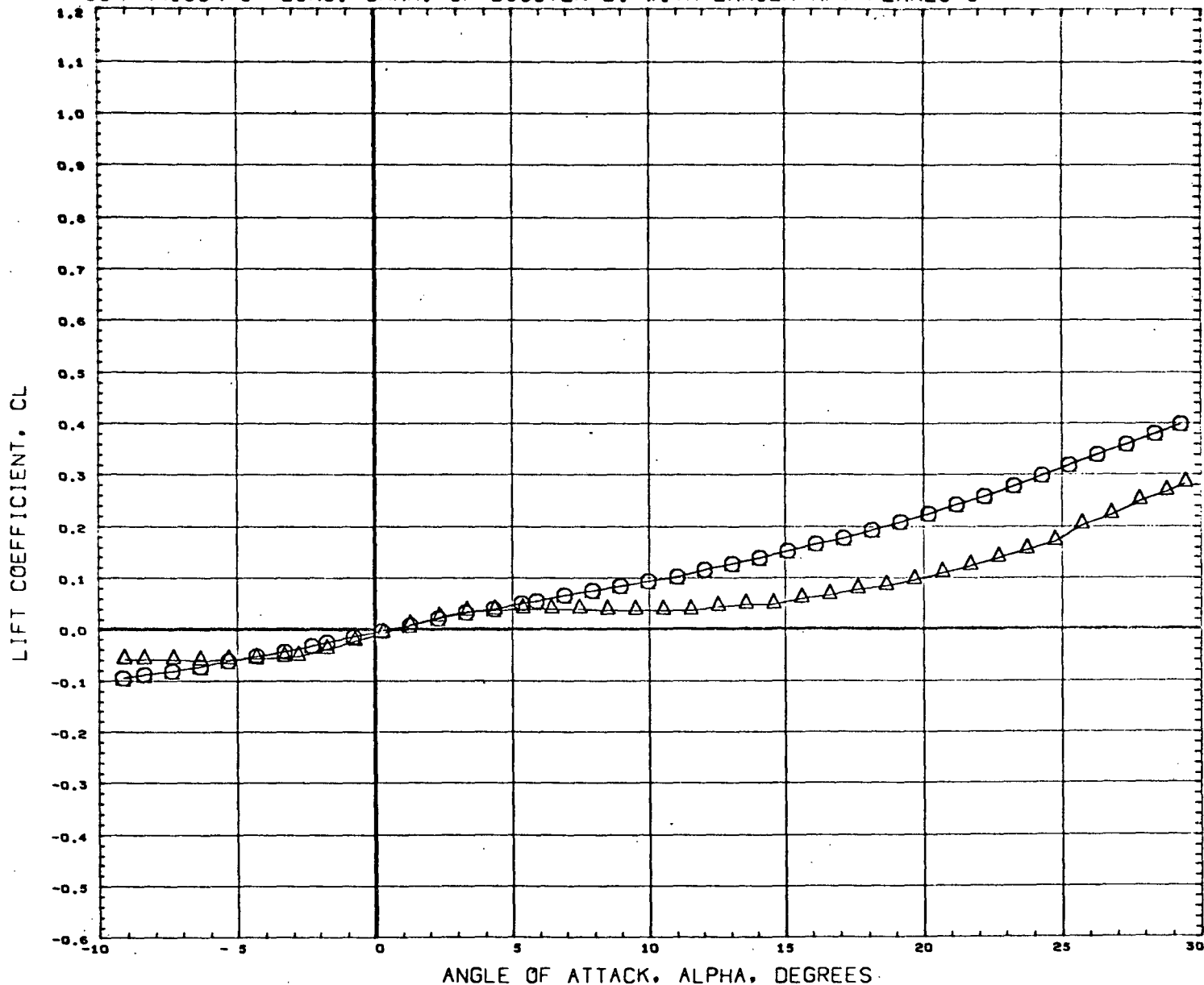
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1	0.000
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 489

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



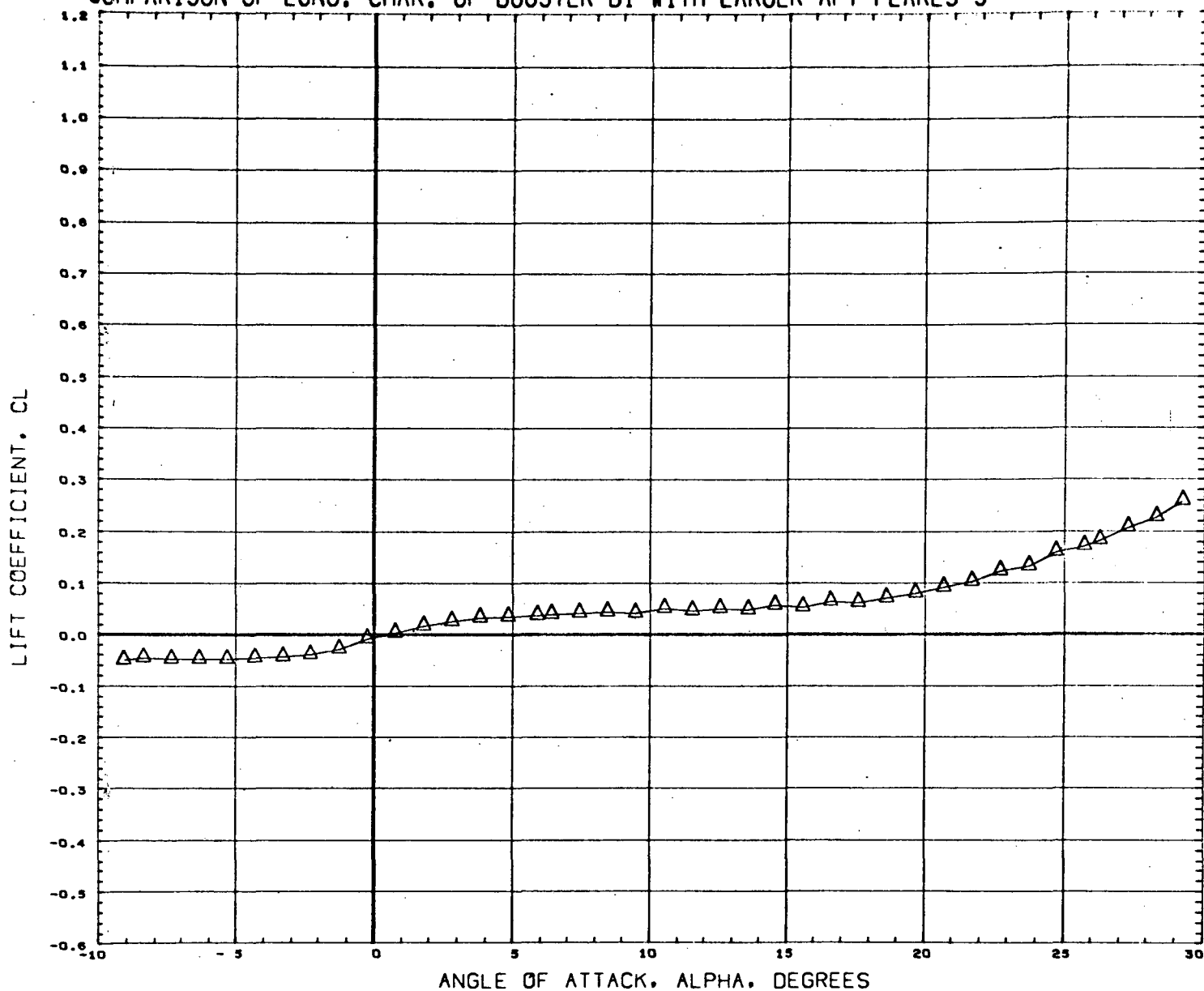
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA
(CD7806)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1	0.000
(CD7807)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .95

PAGE 490

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

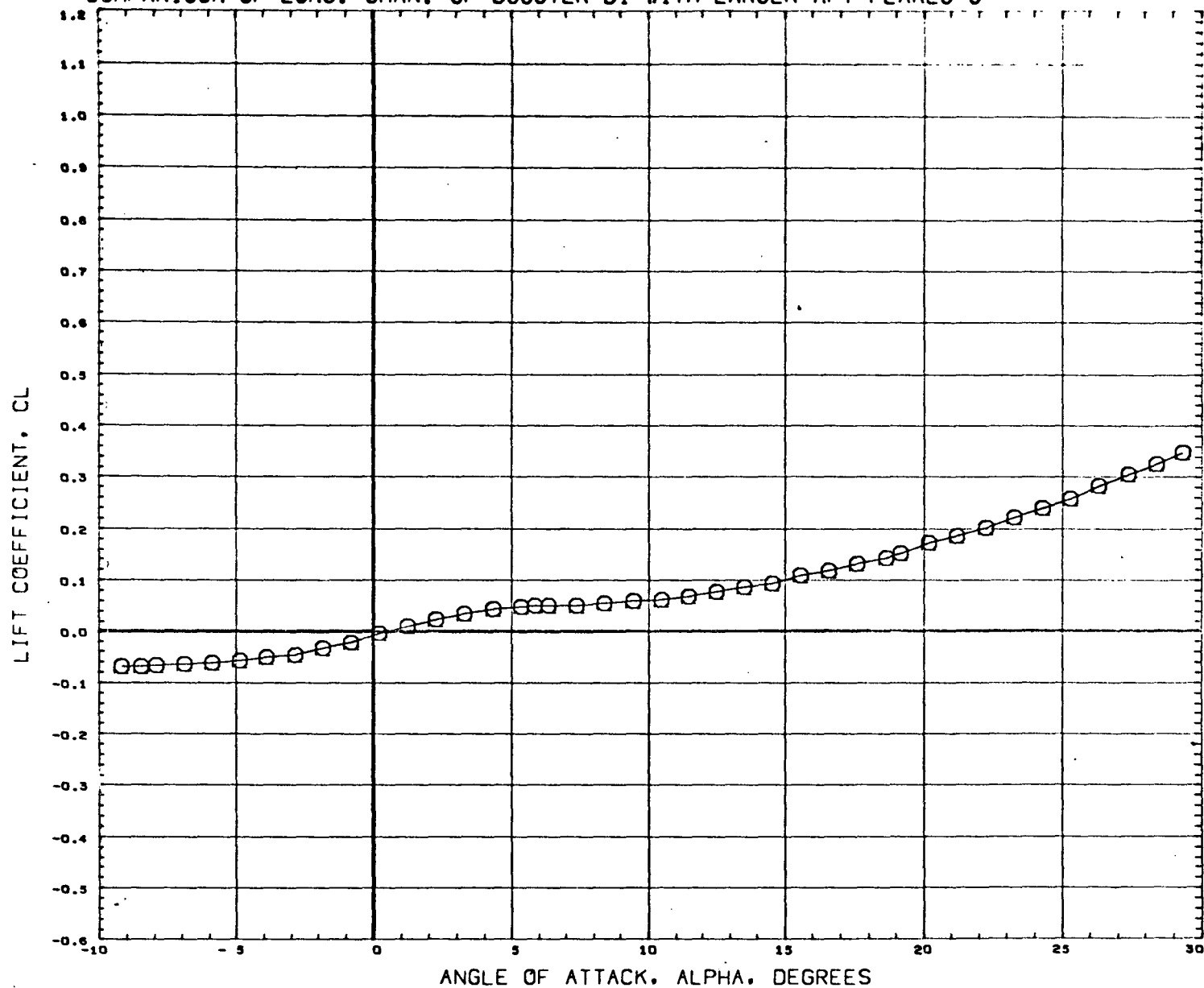
BETA
 0.000
 0.000



REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 491

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C07806)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (C07807)  DATA NOT AVAILABLE FOR ALL CONDITIONS

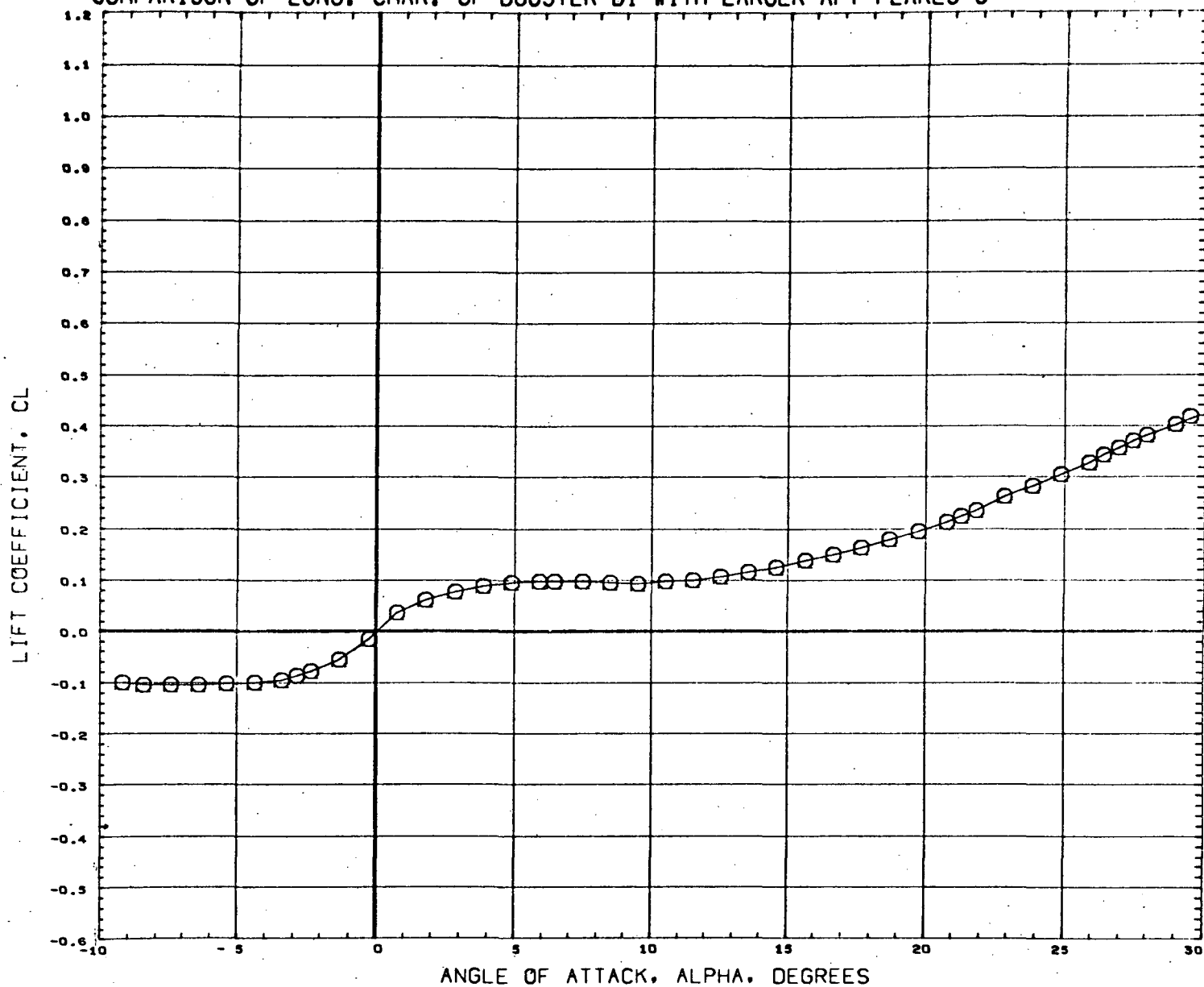
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 492

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

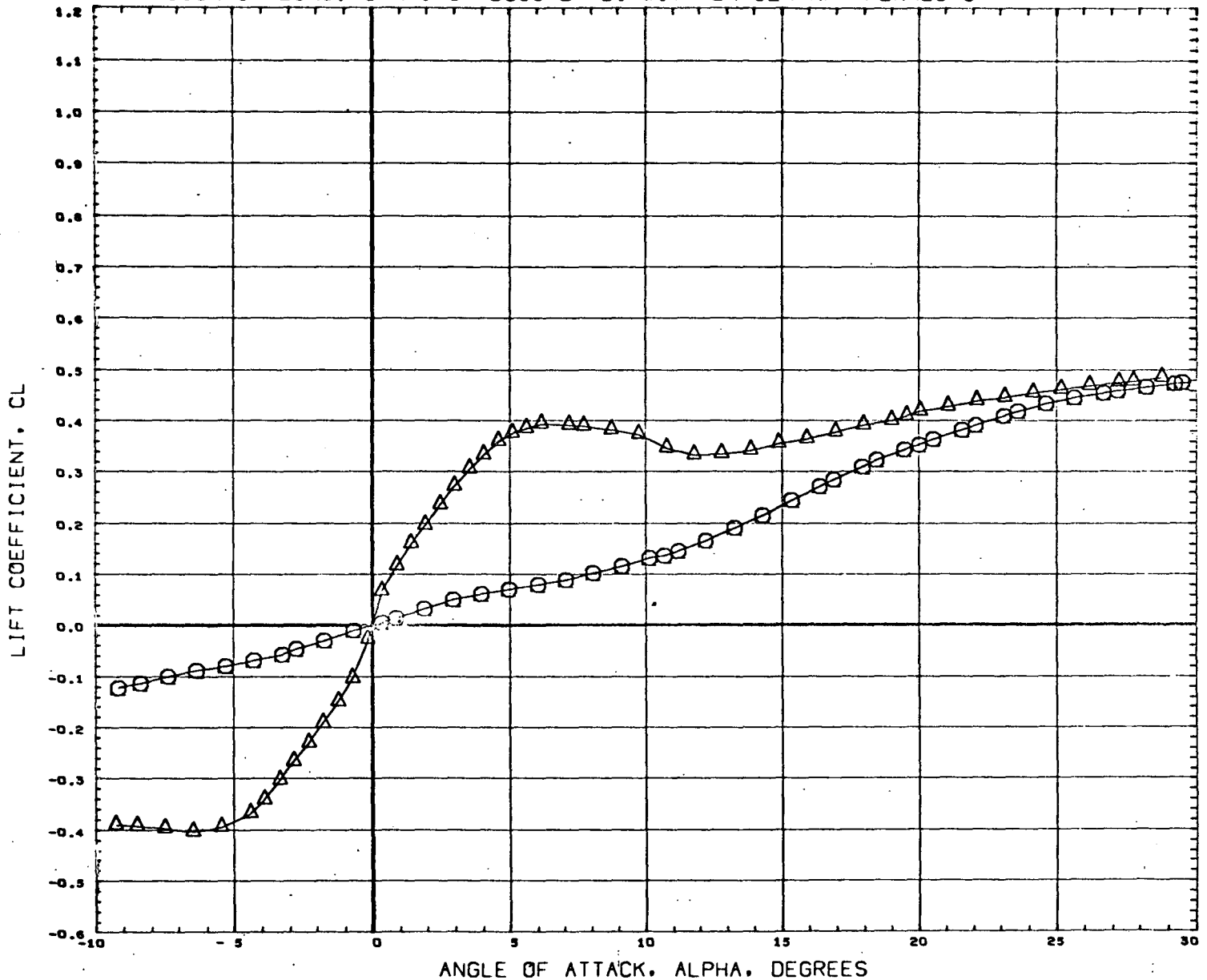
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 493

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

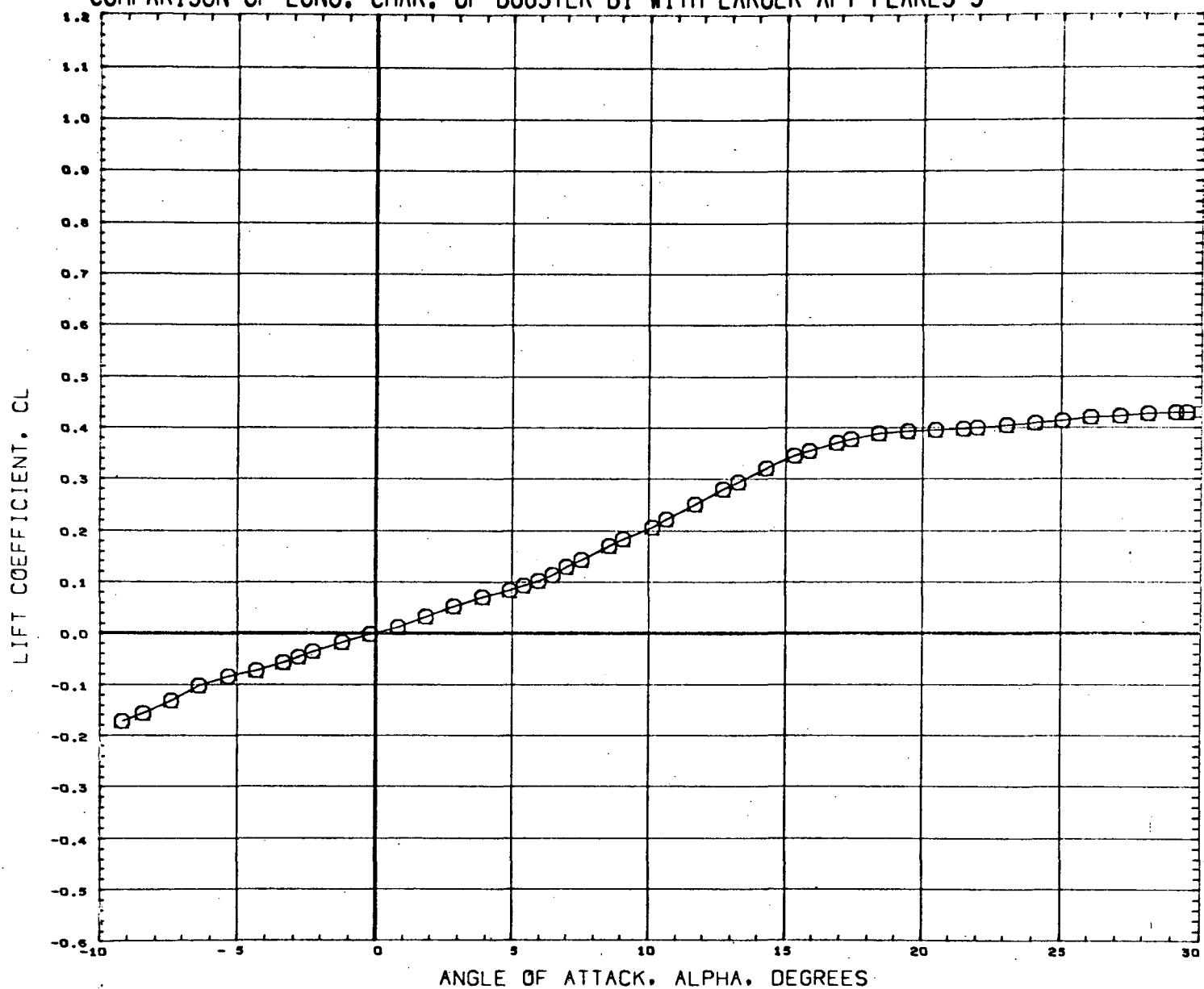
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 494

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

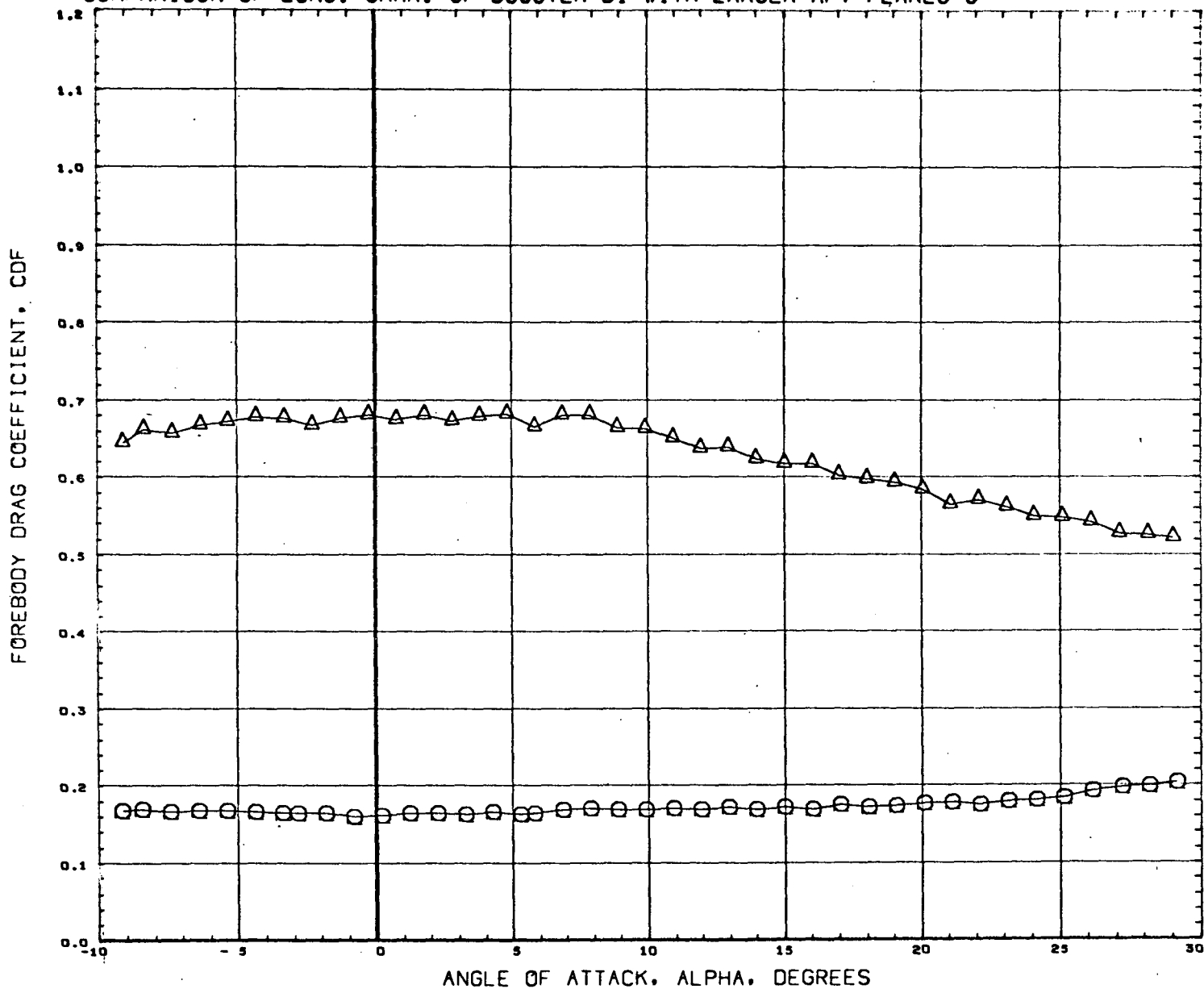
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 495

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07806)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(C07807)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

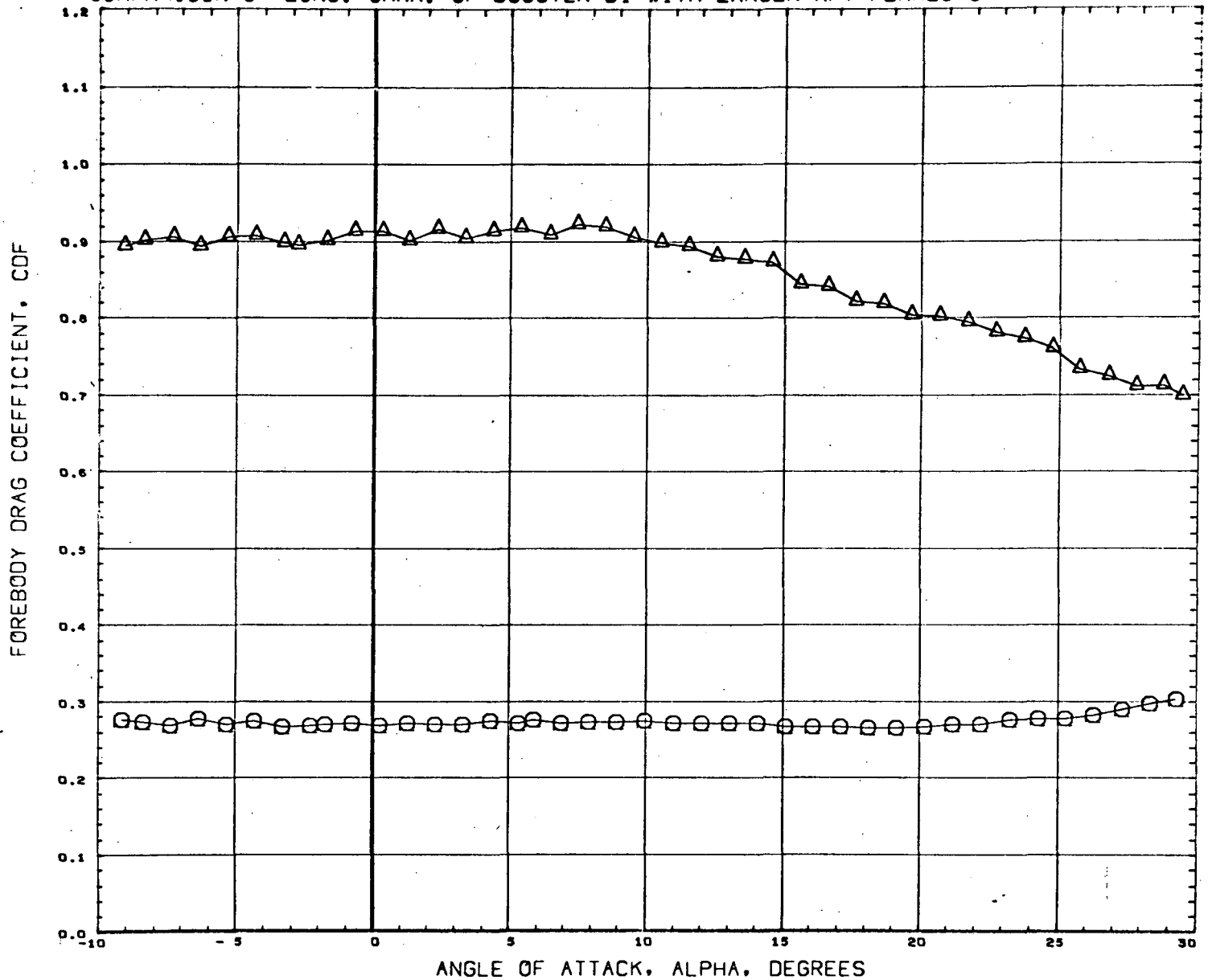
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 496

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

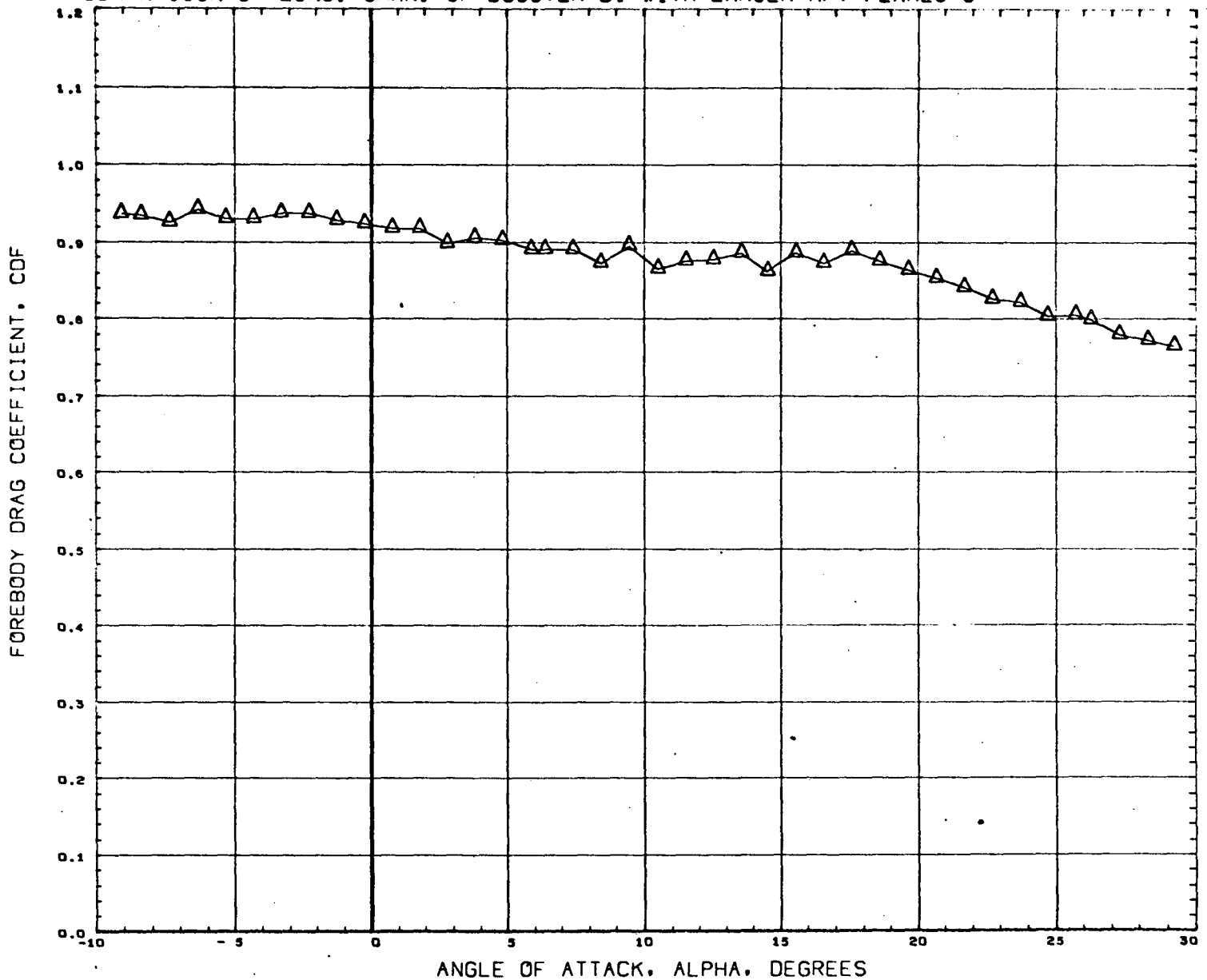
BETA
0.000
0.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0060 SCALE

MACH .95

PAGE 497

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

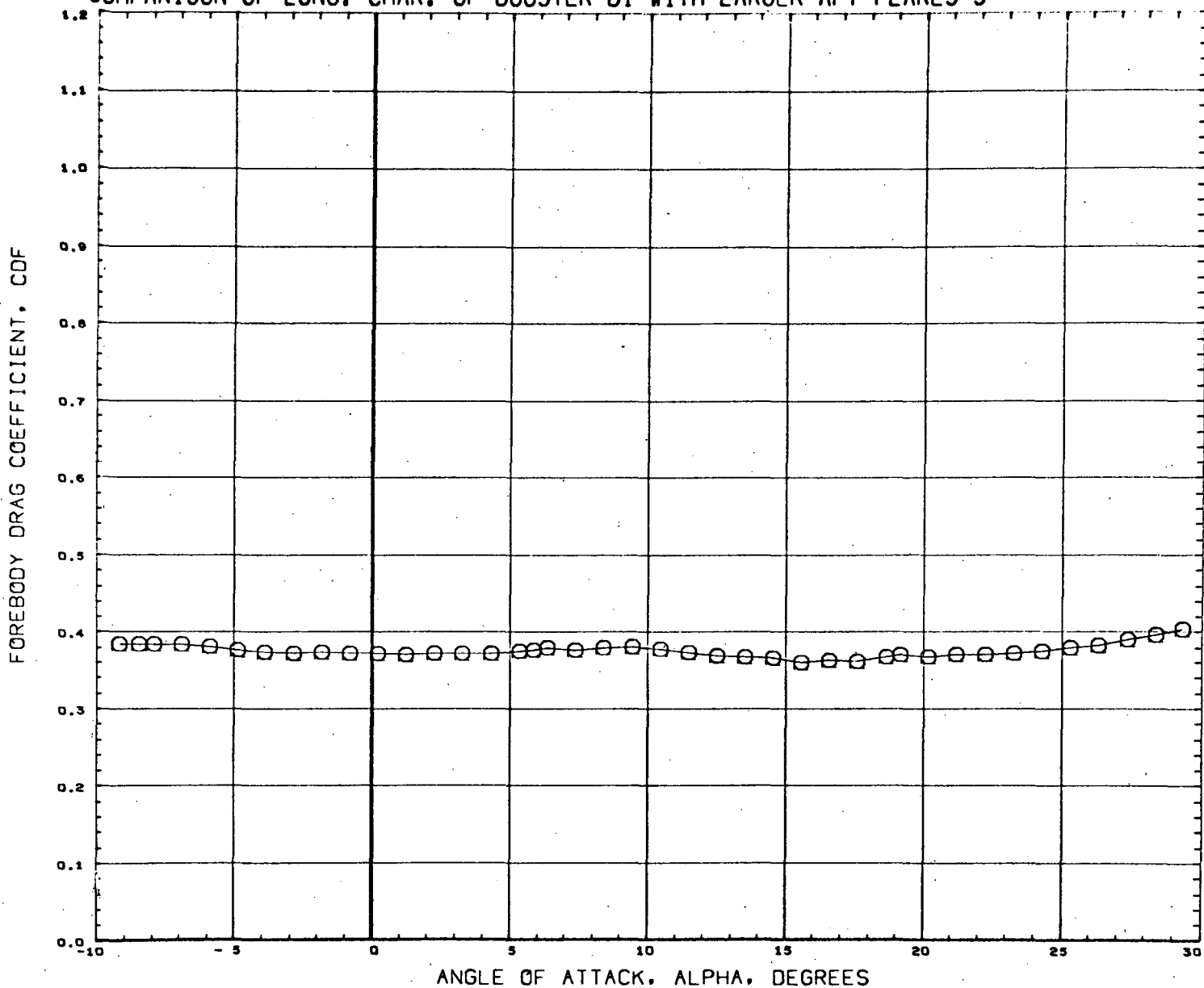
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 498

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \odot MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS

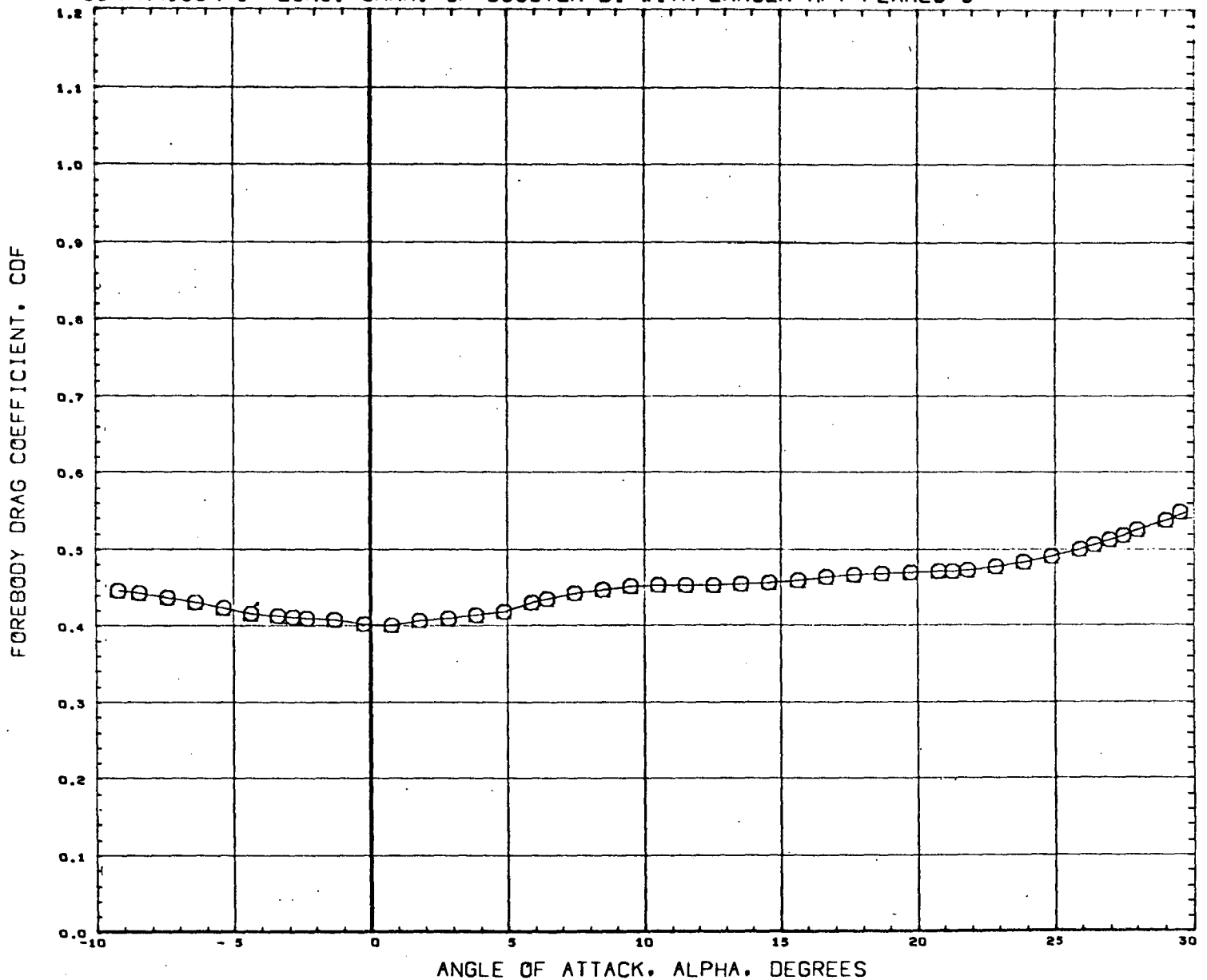
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 499

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \bigcirc MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA
 0.000
 0.000

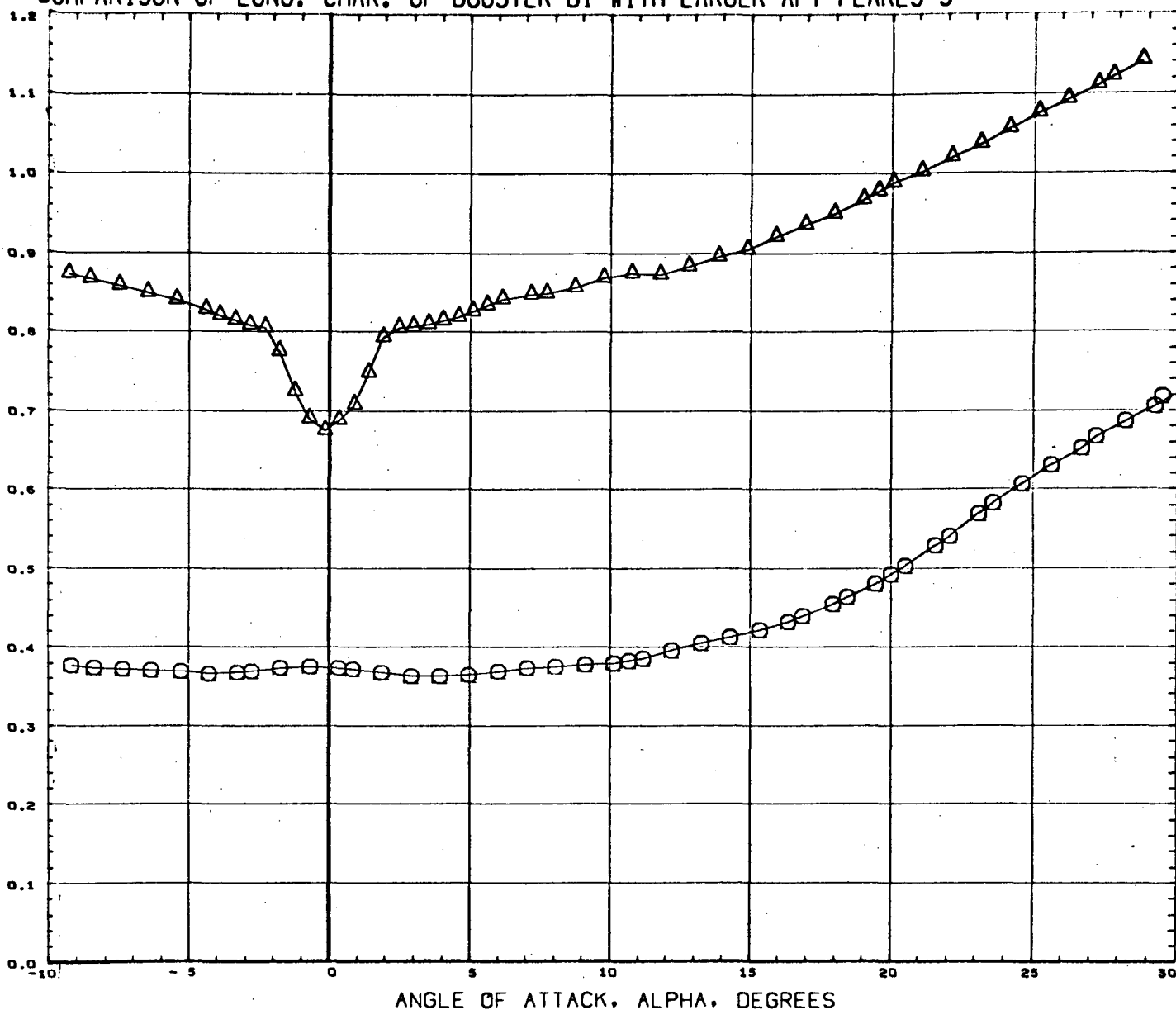
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 500

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

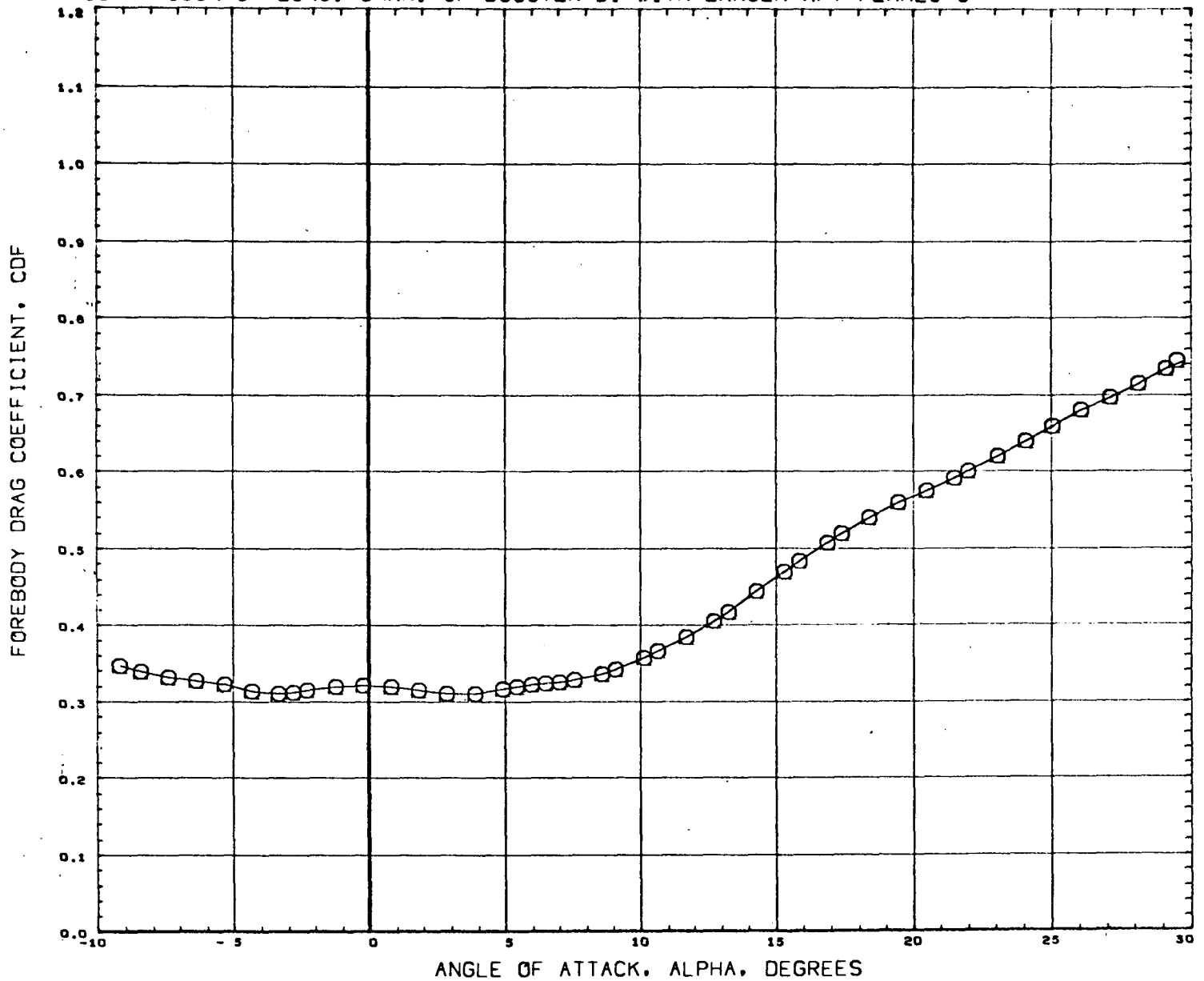
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 501

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

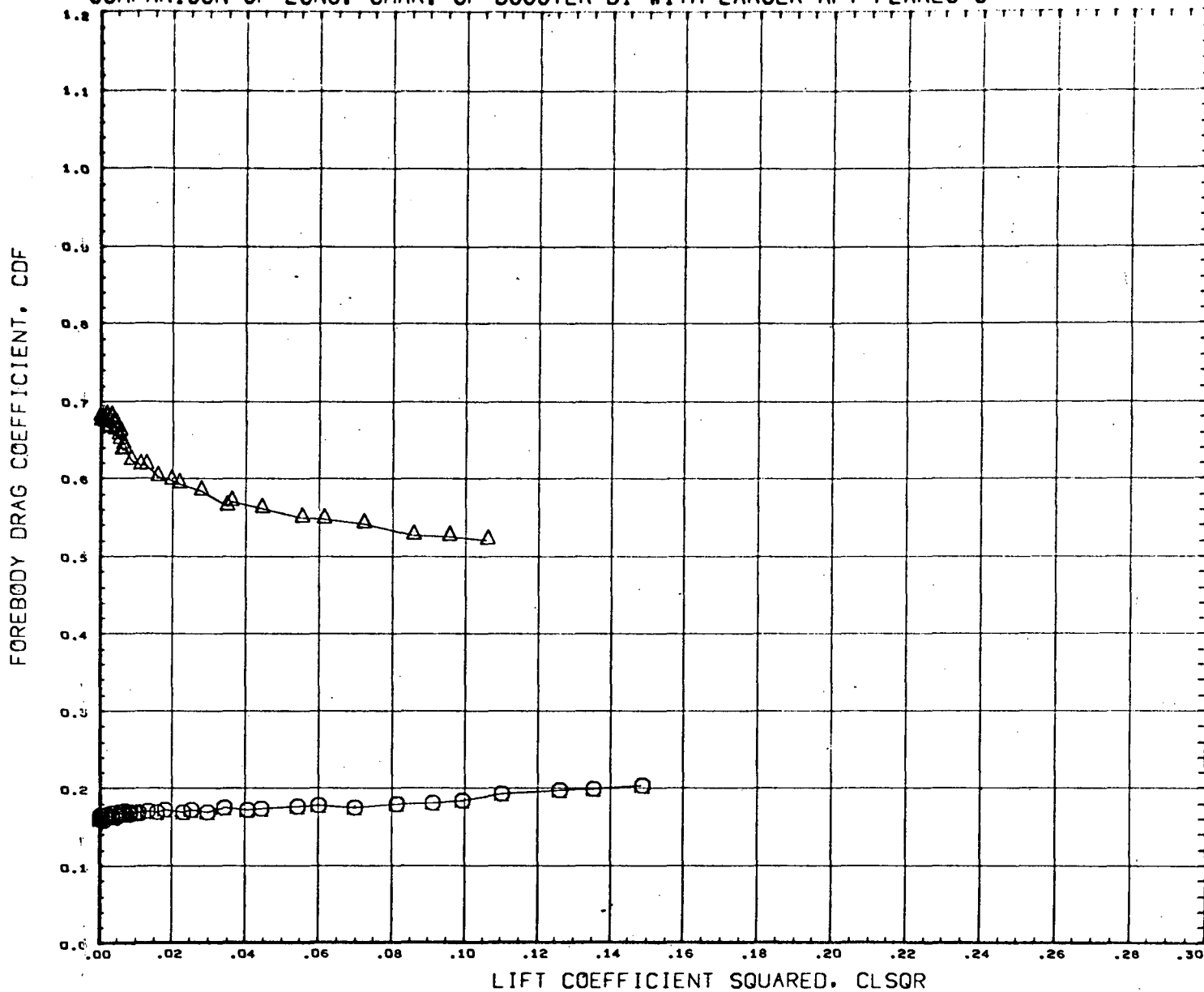
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 502

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

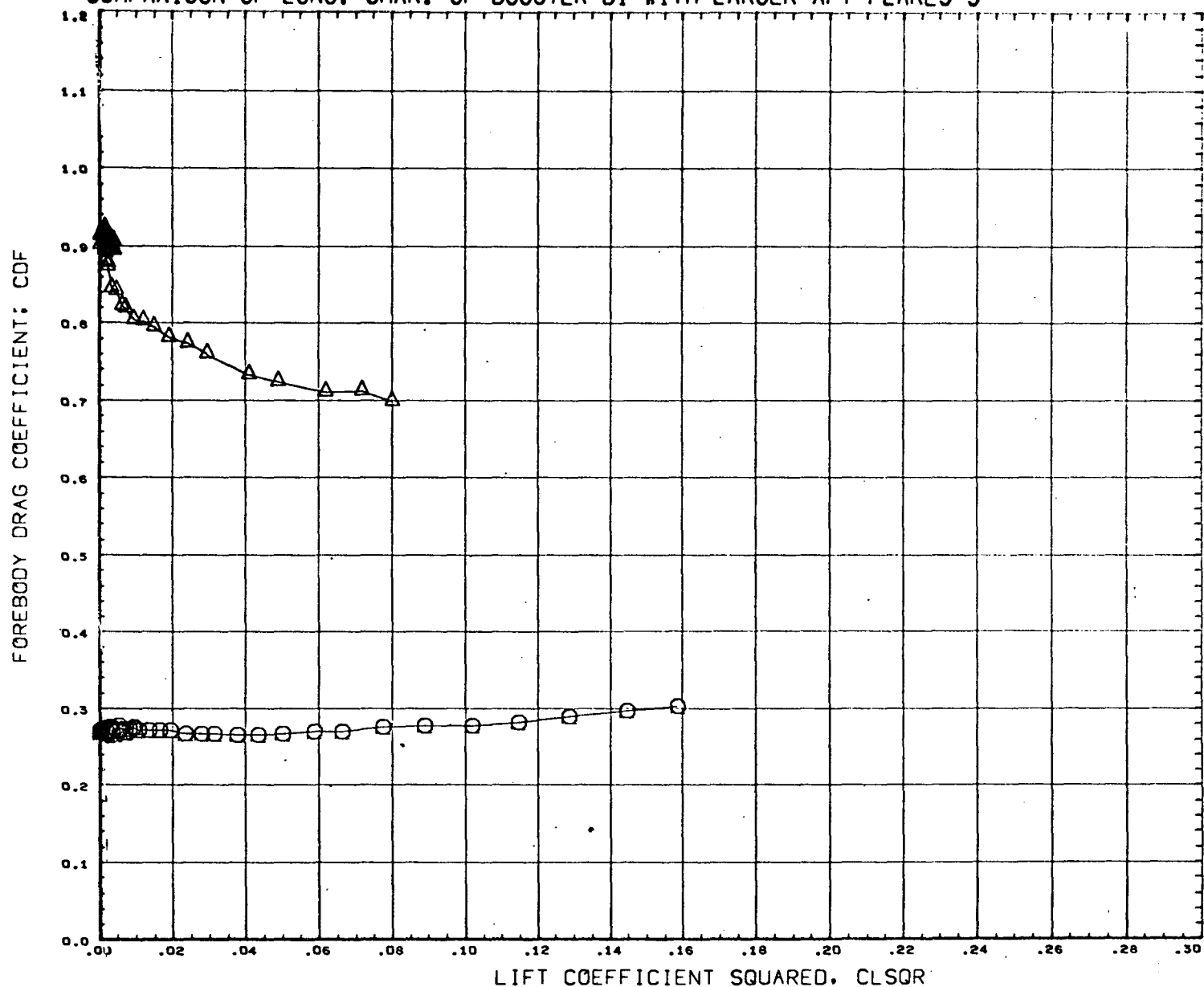
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 503

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

BETA
0.000
0.000

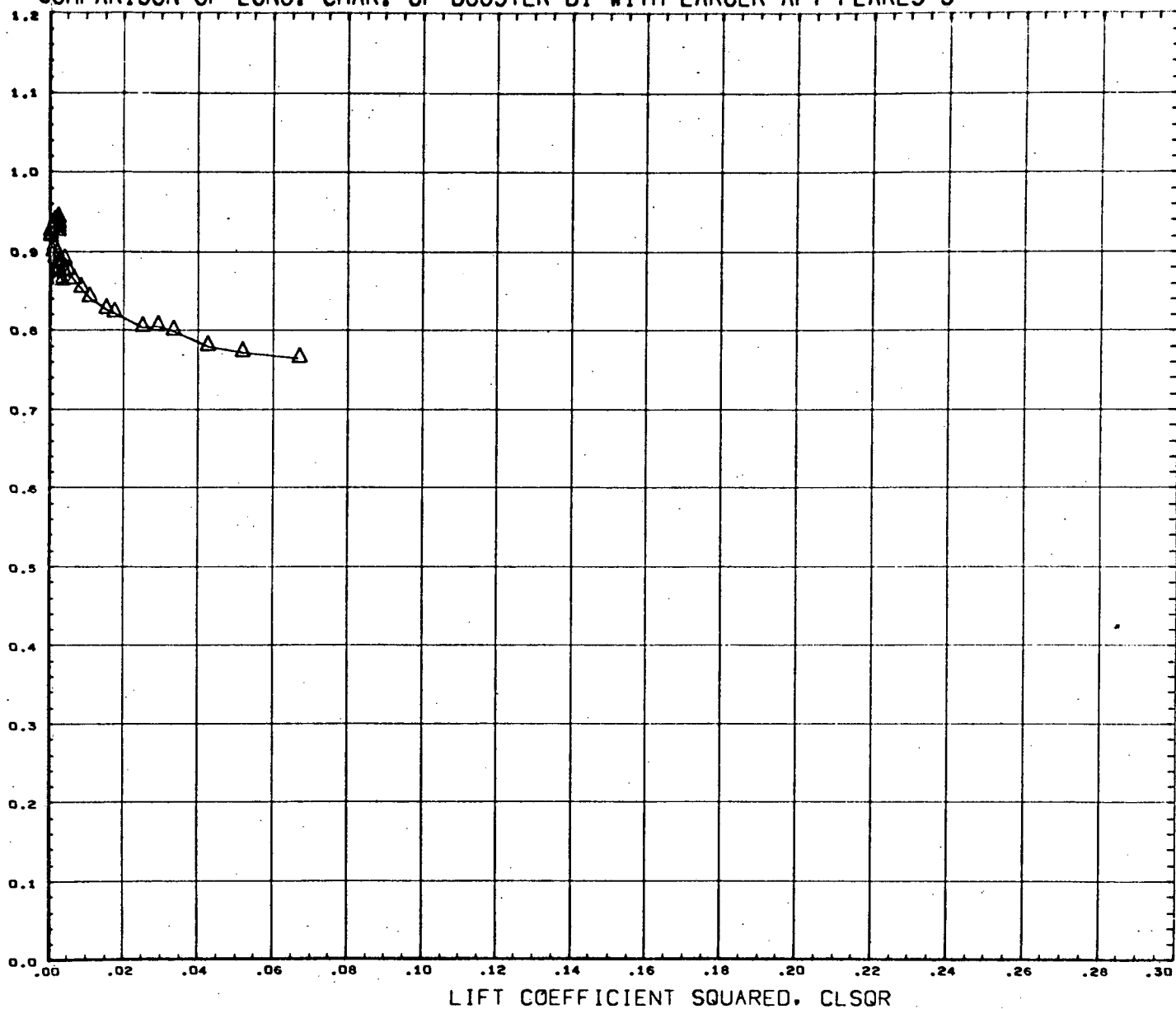
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .95

PAGE 504

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

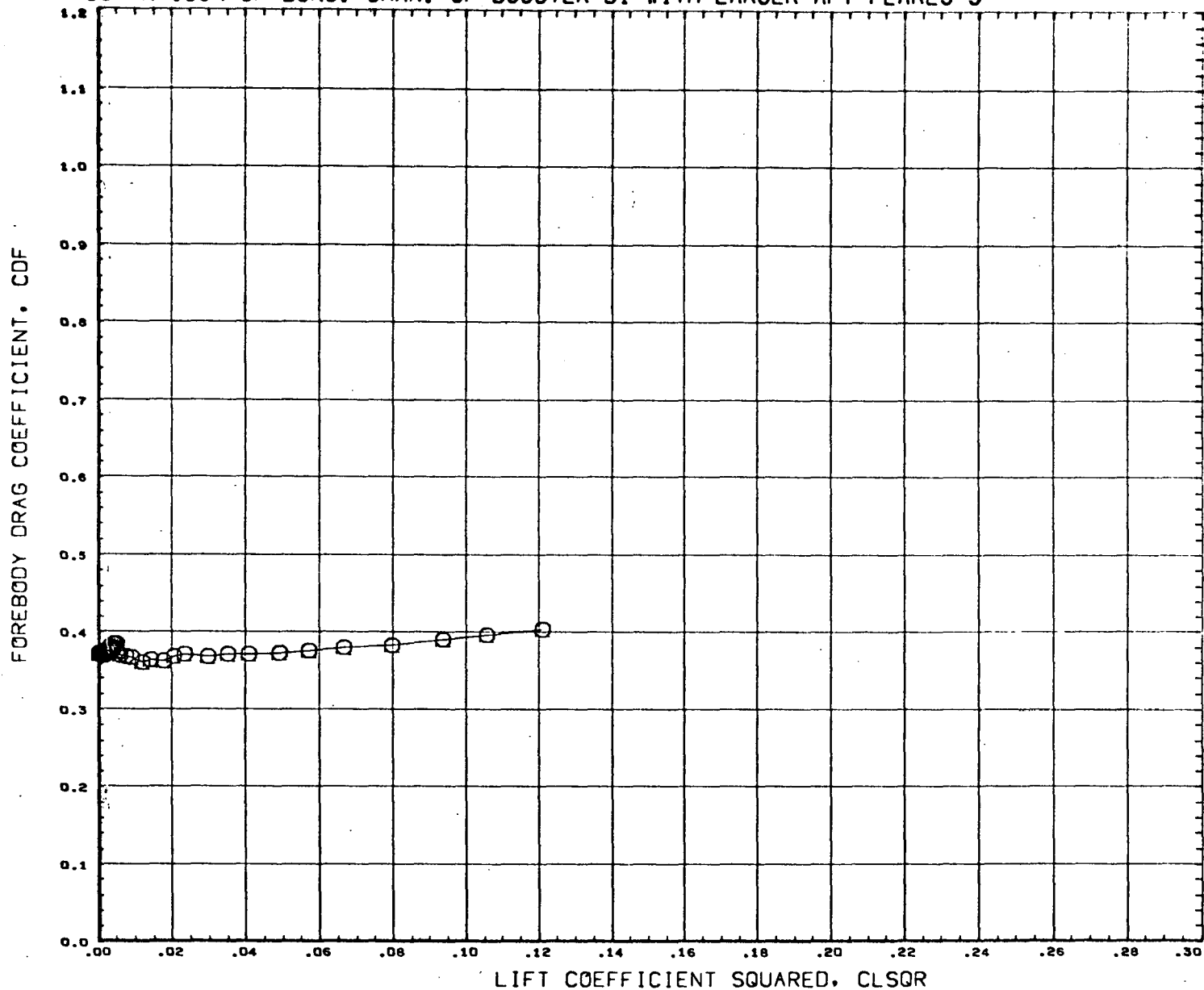
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 505

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

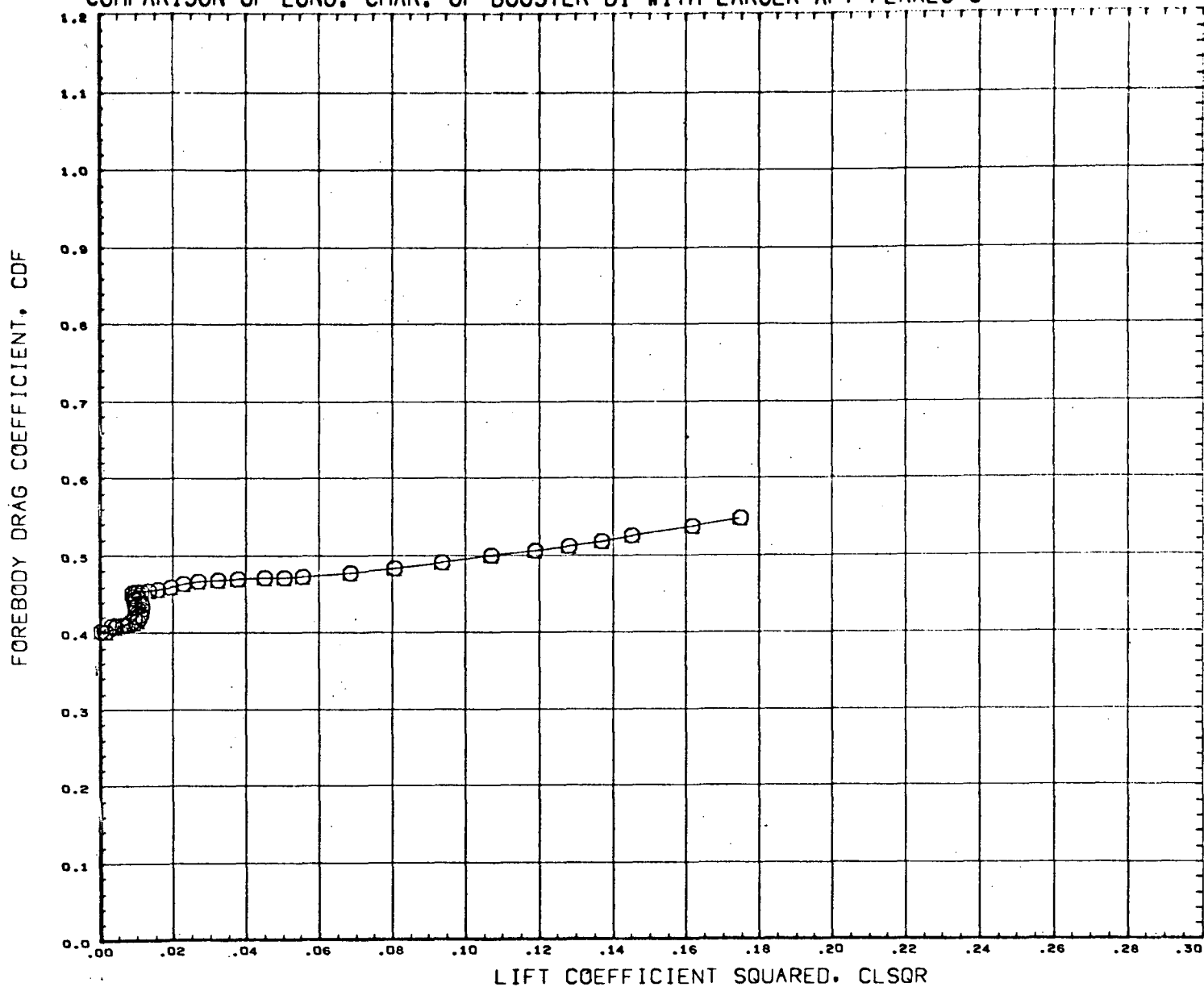
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 506

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA
 0.000
 0.000

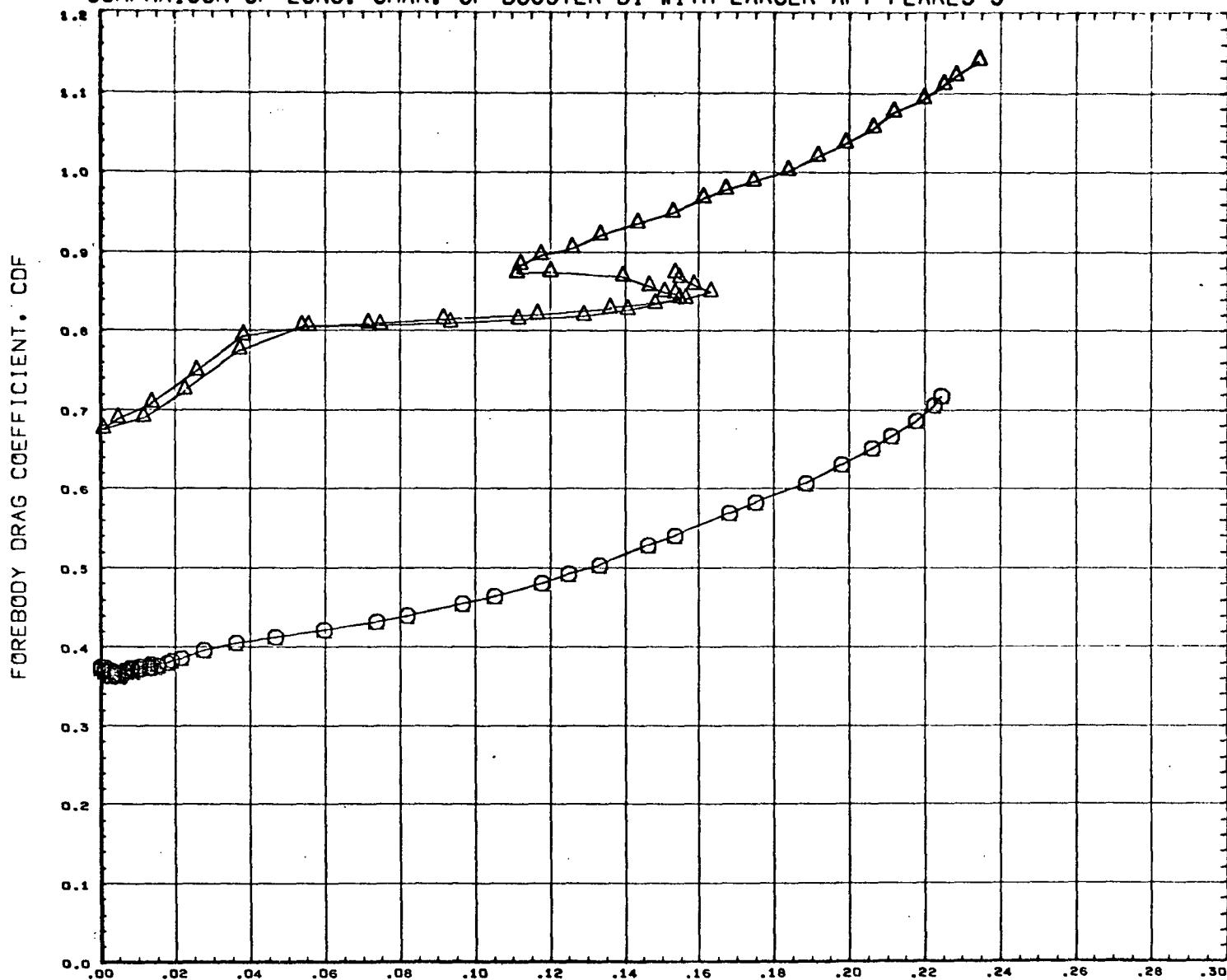
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH

1.51

PAGE 507

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

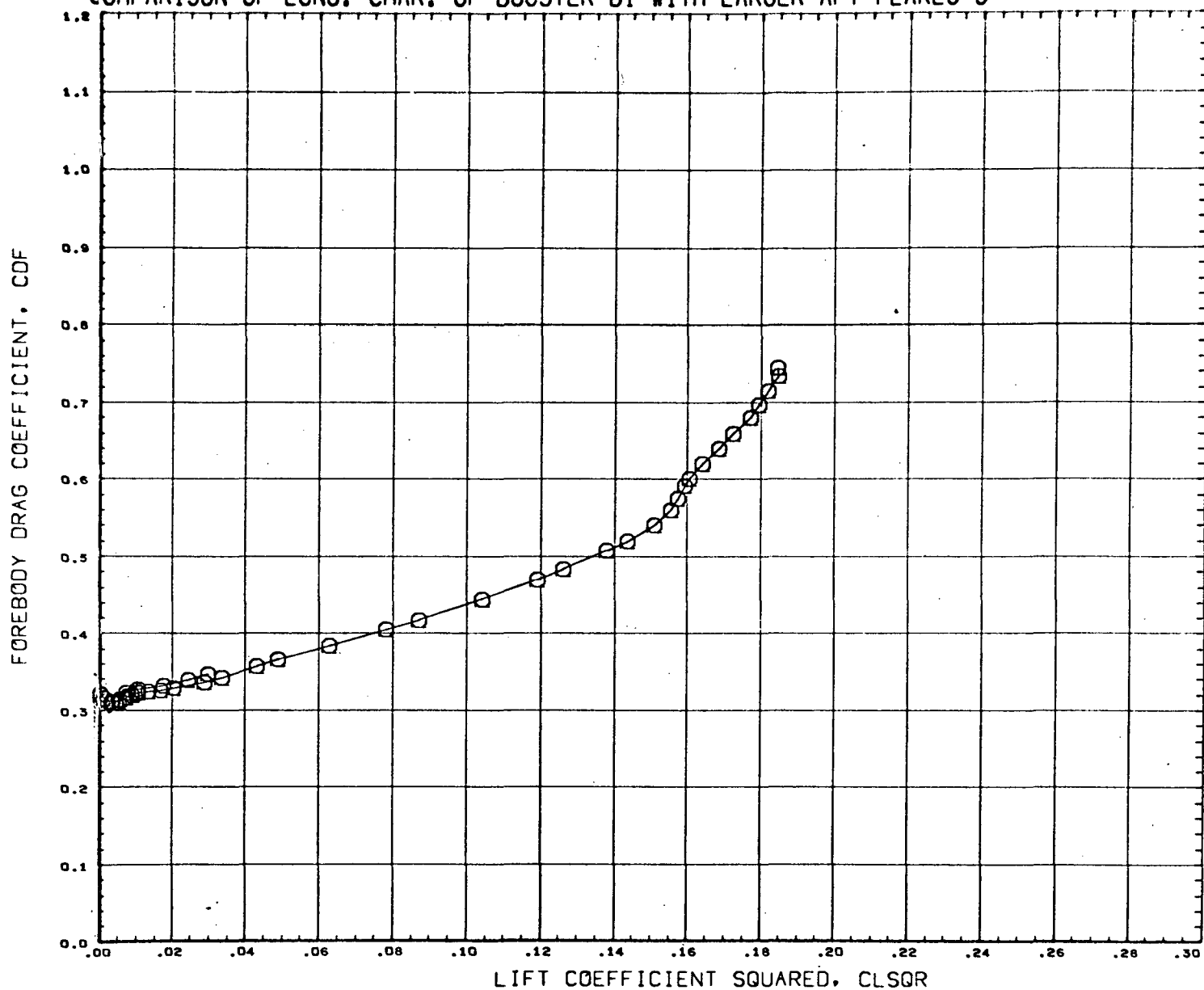
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 508

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

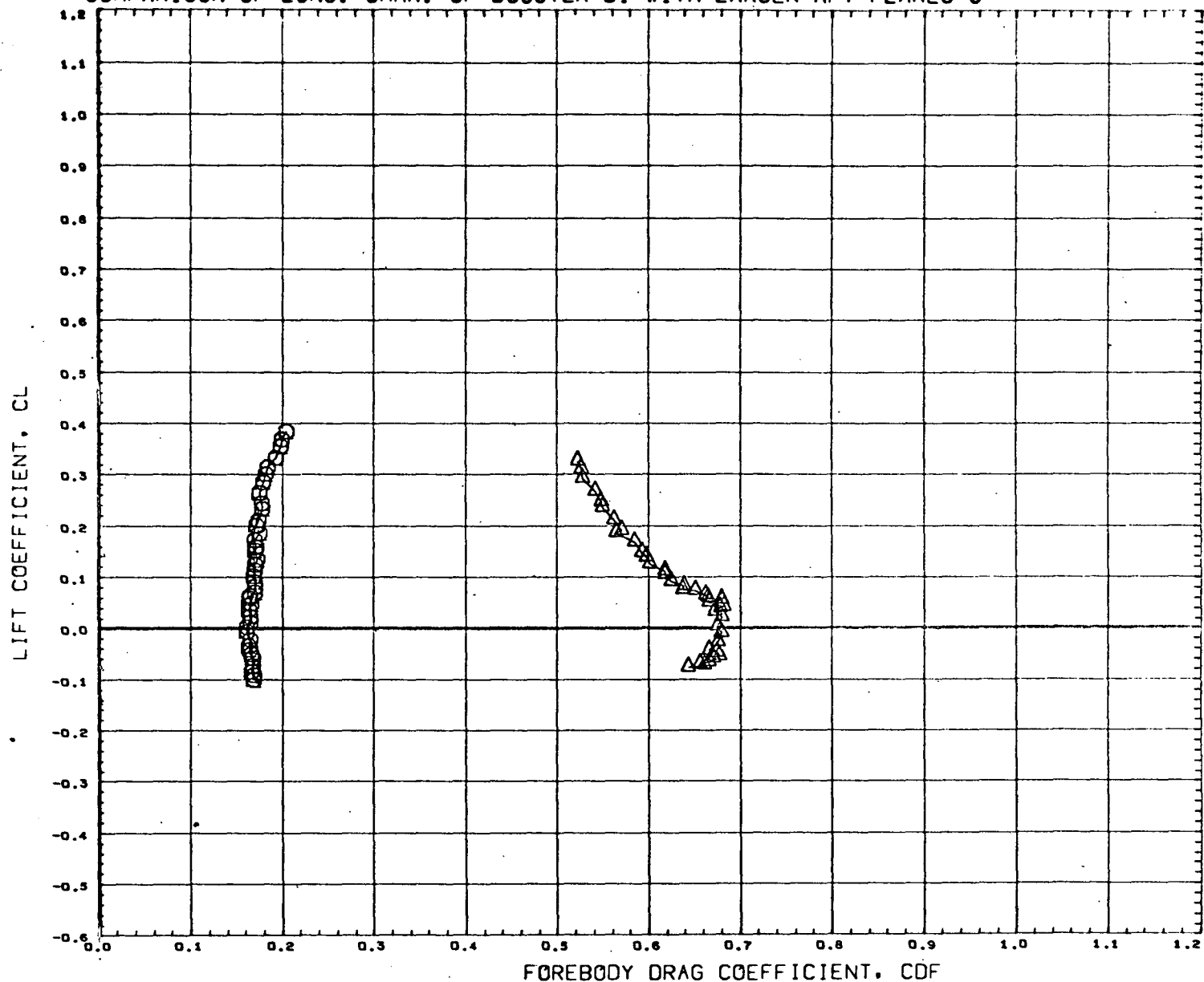
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 509

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

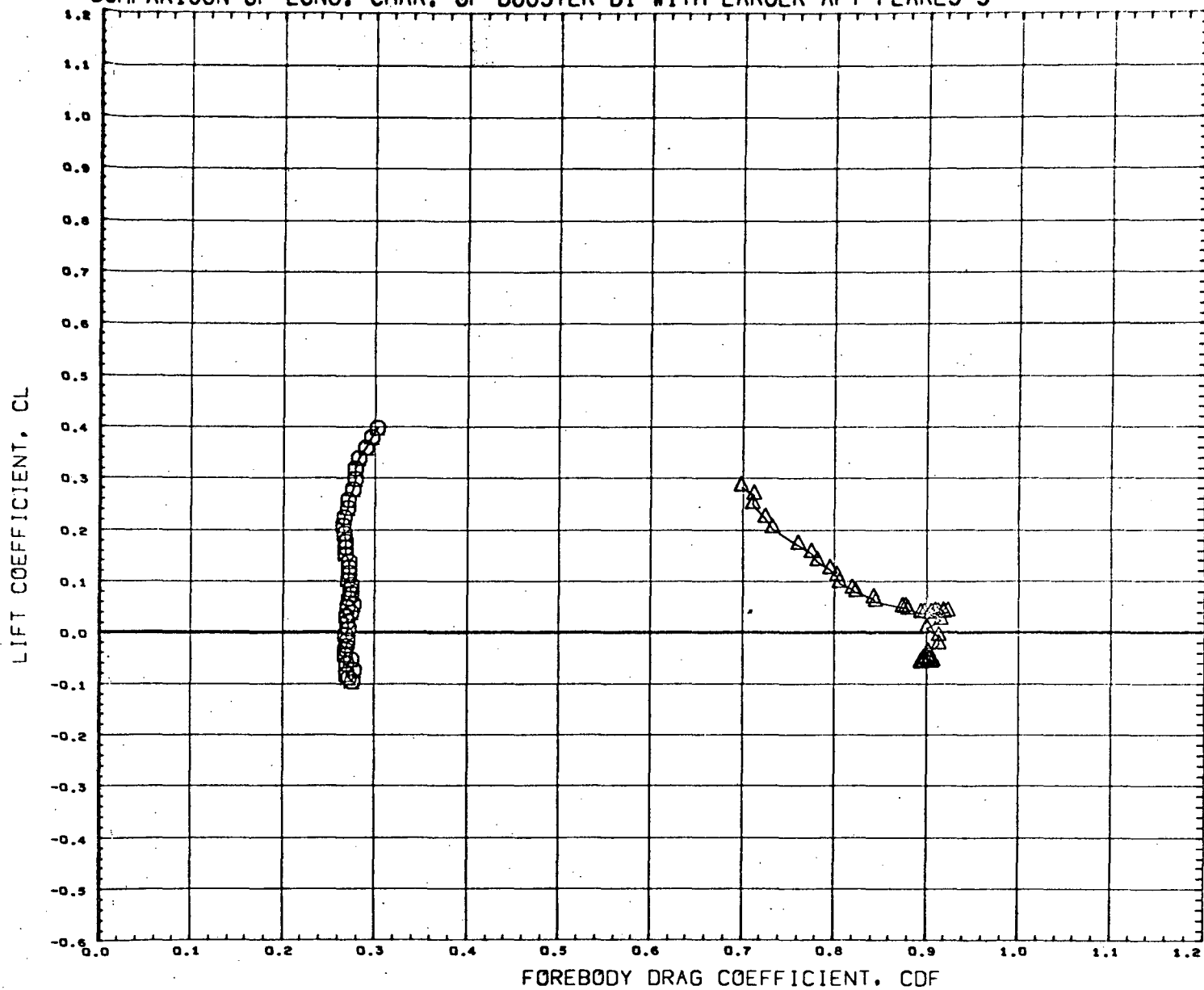
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 510

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7806) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(CD7807) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

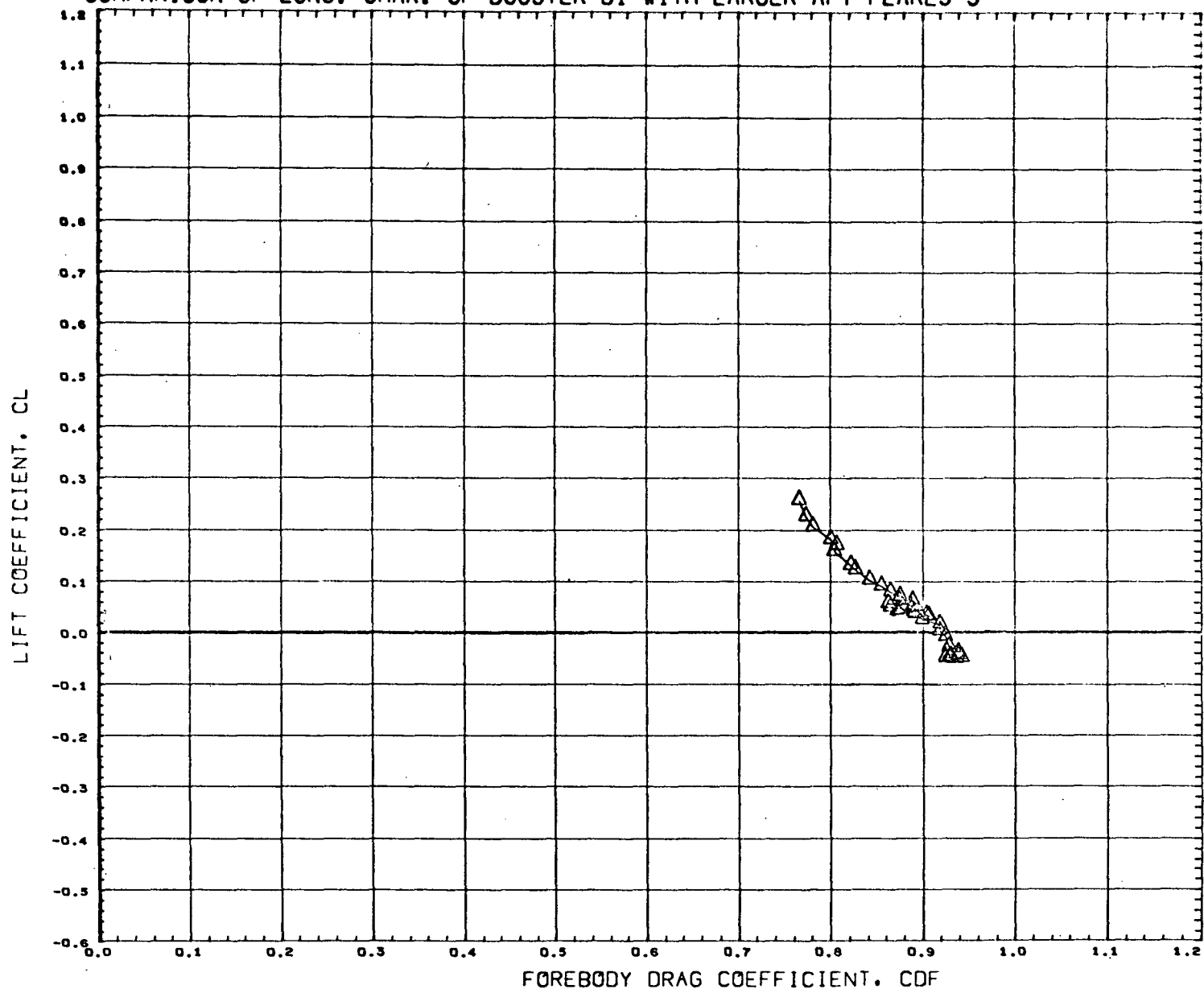
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .95

PAGE 511

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

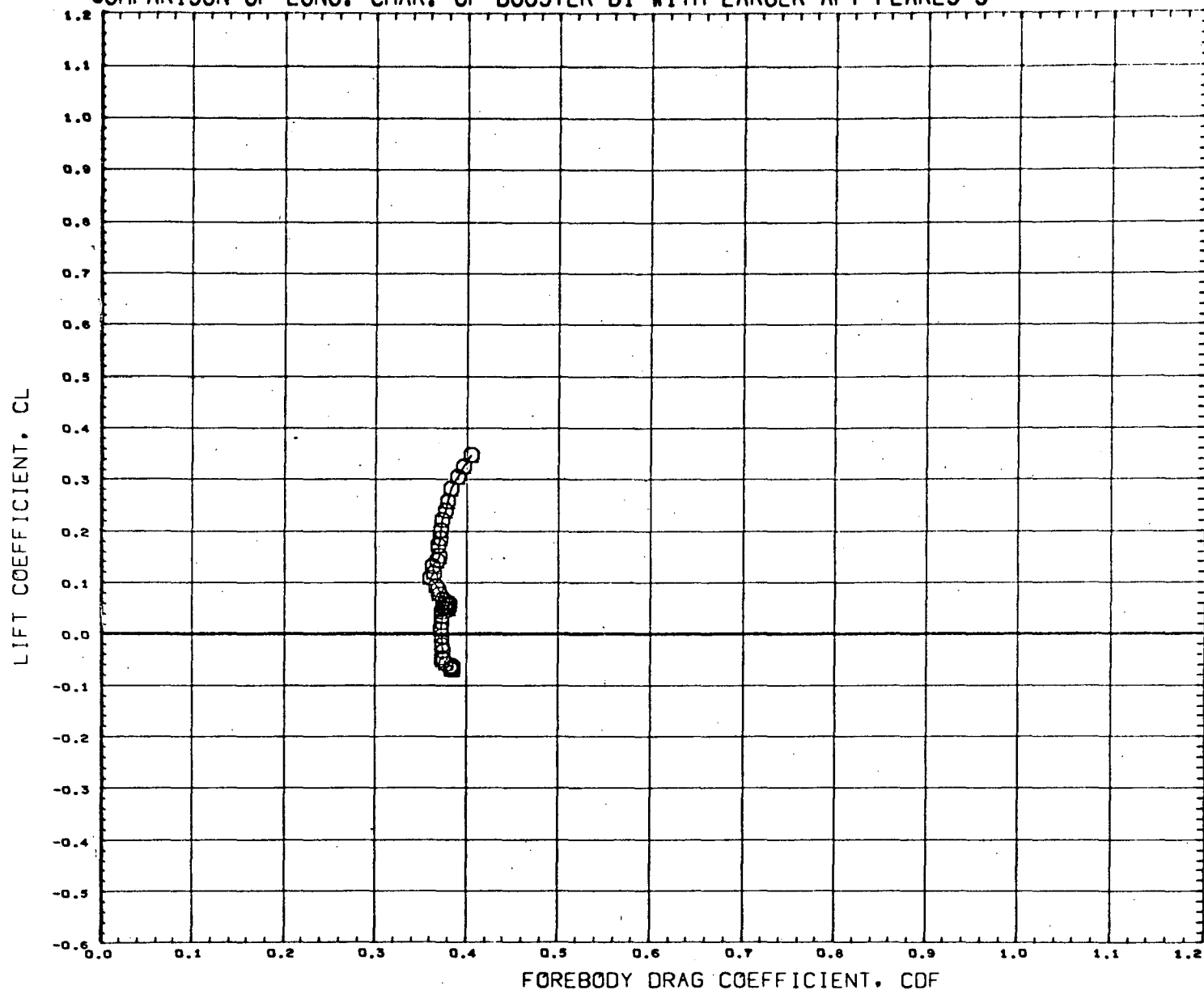
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 512

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA
 0.000
 0.000

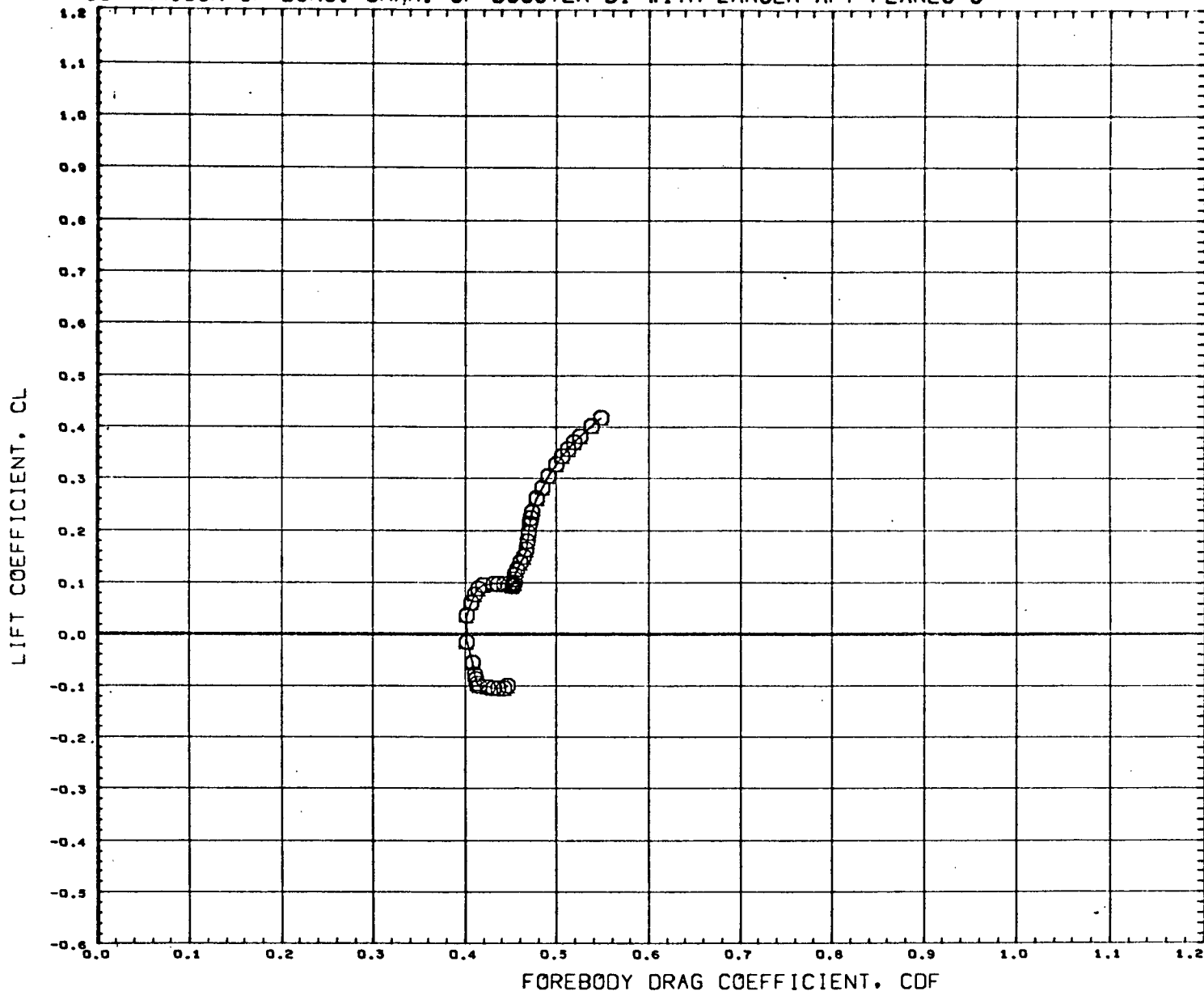
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH

1.09

PAGE 513

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C07806)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (C07807)  DATA NOT AVAILABLE FOR ALL CONDITIONS

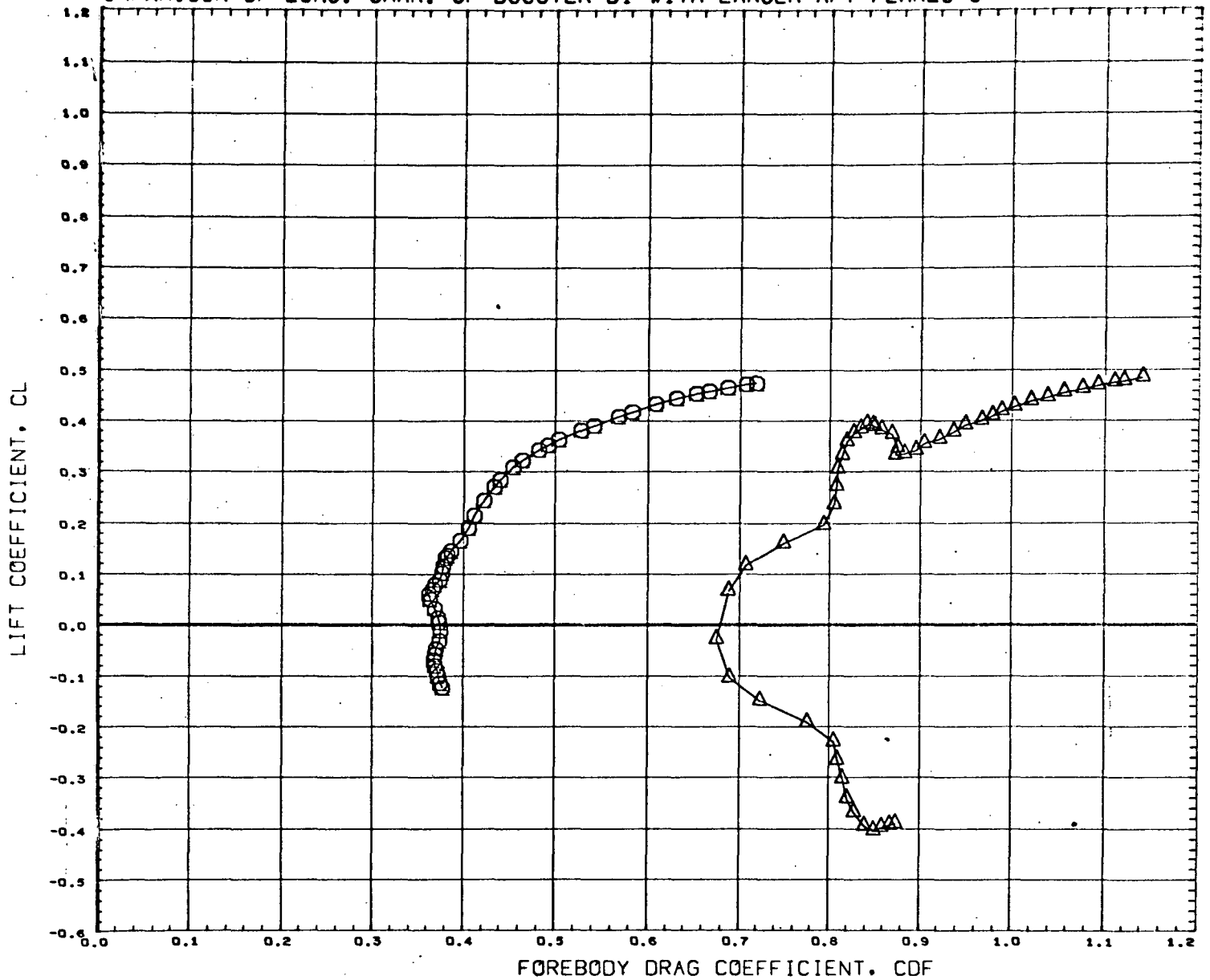
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 514

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

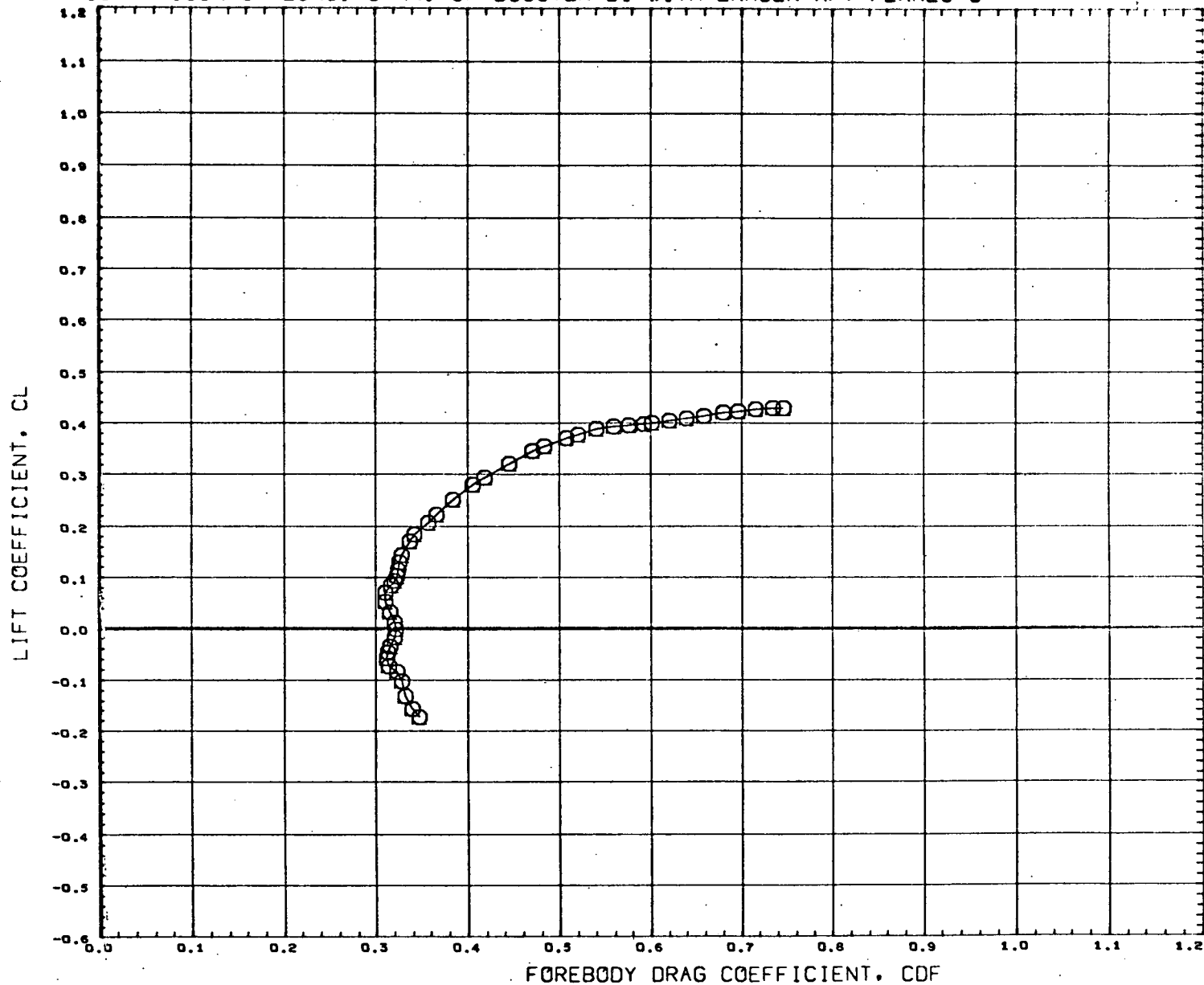
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 515

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

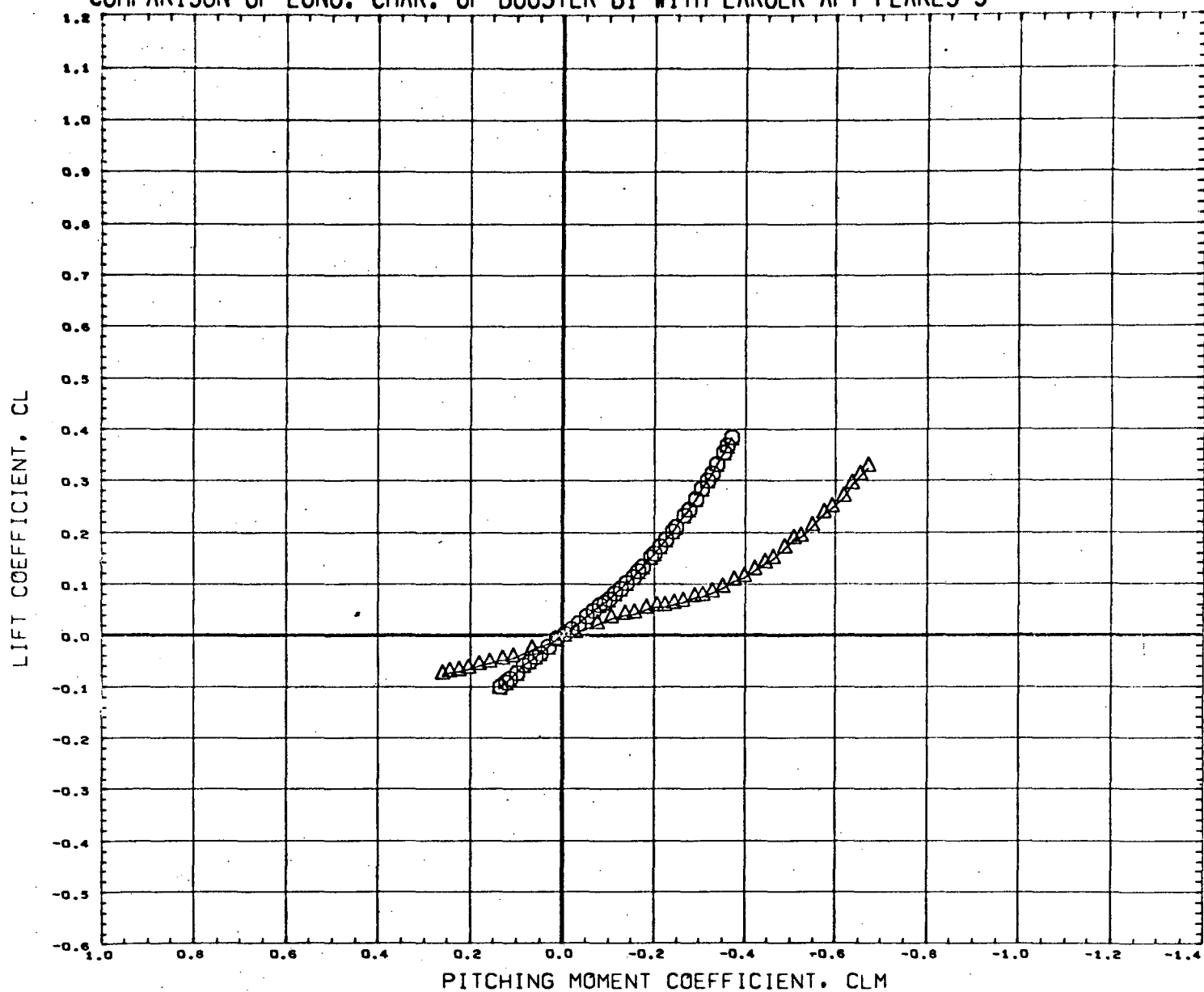
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 516

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL, CONFIGURATION DESCRIPTION
 (CD7806) \bigcirc MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) \triangle MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

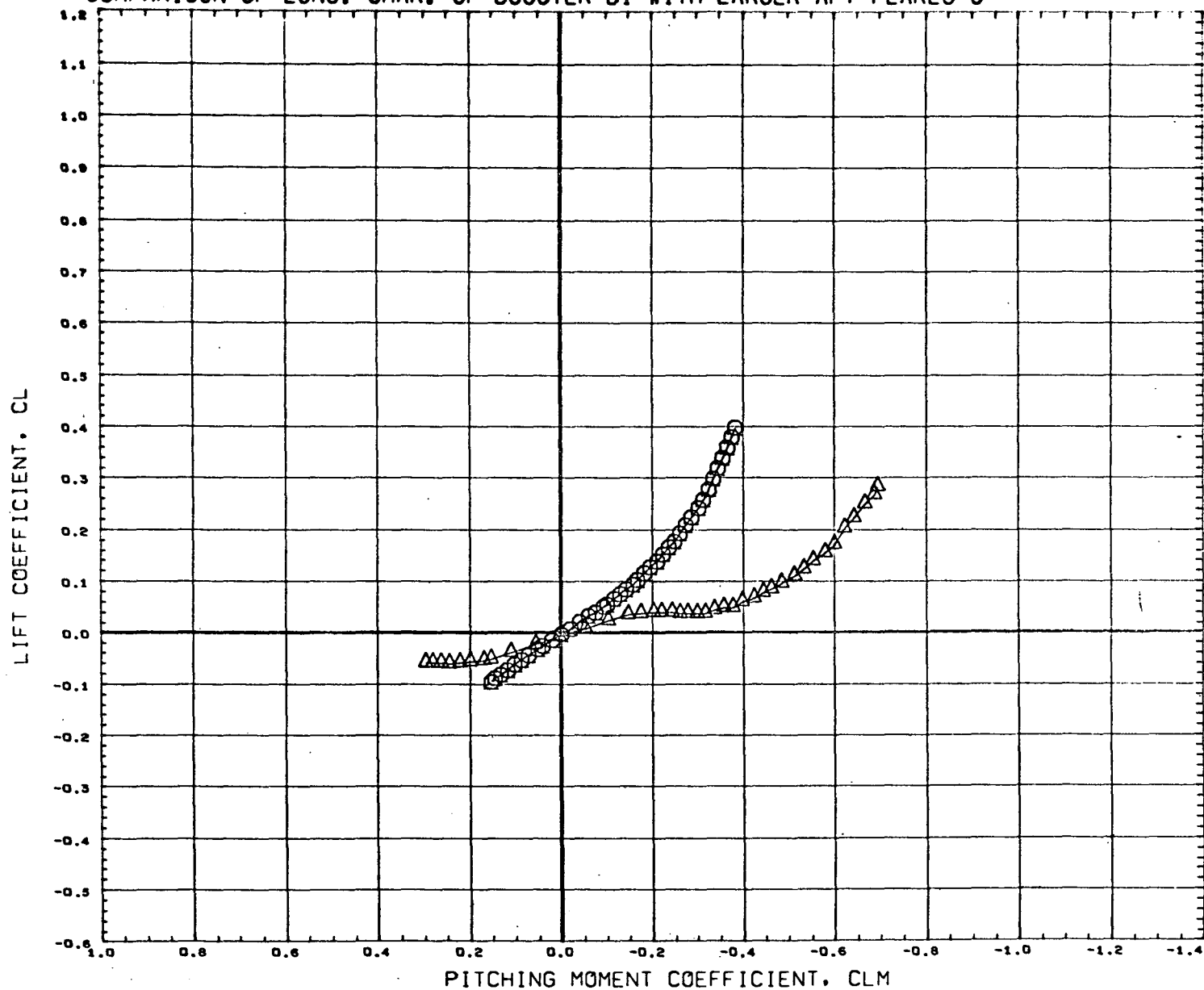
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .65

PAGE 517

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

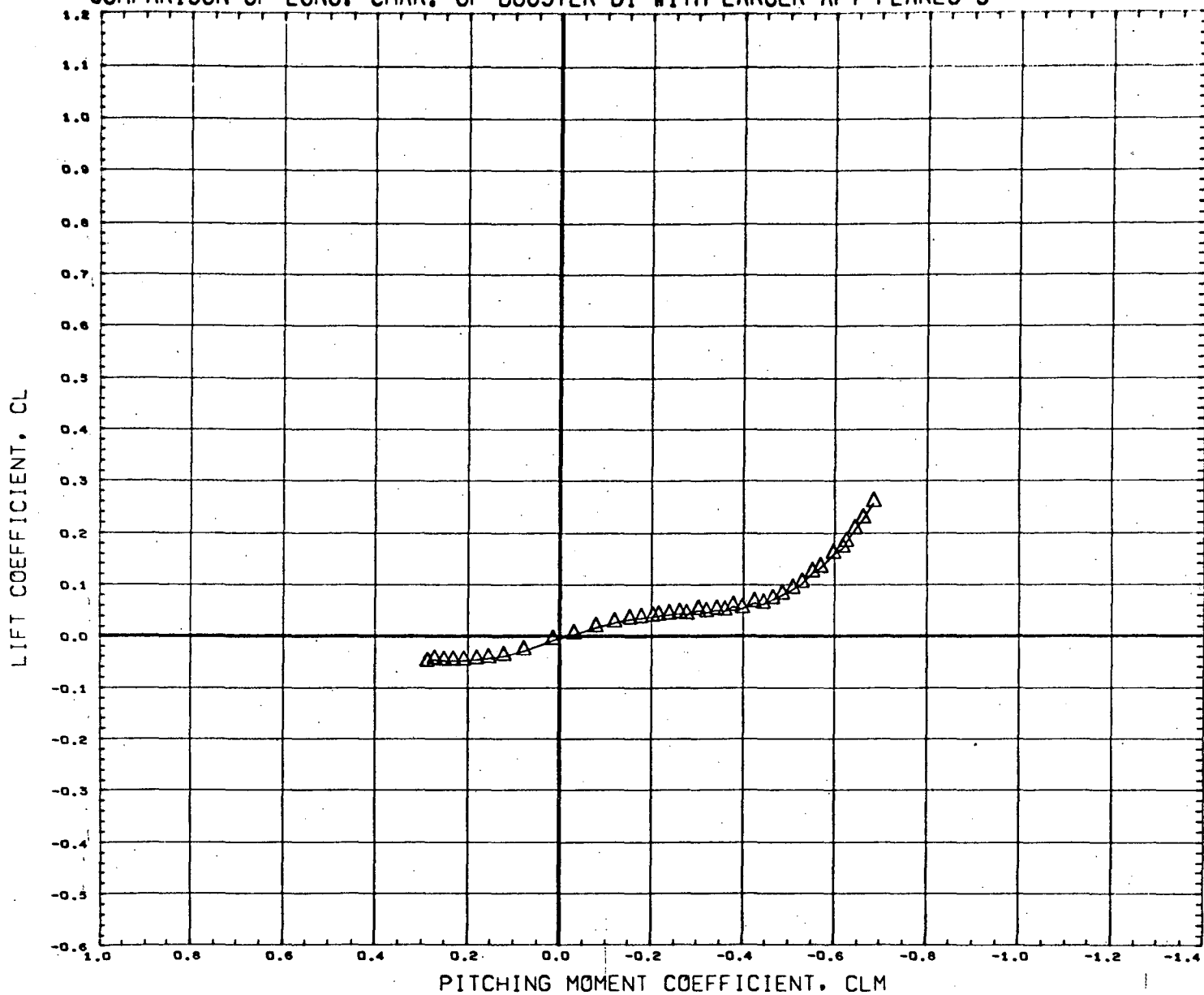
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .95

PAGE 518

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) \odot DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7807) \triangle MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

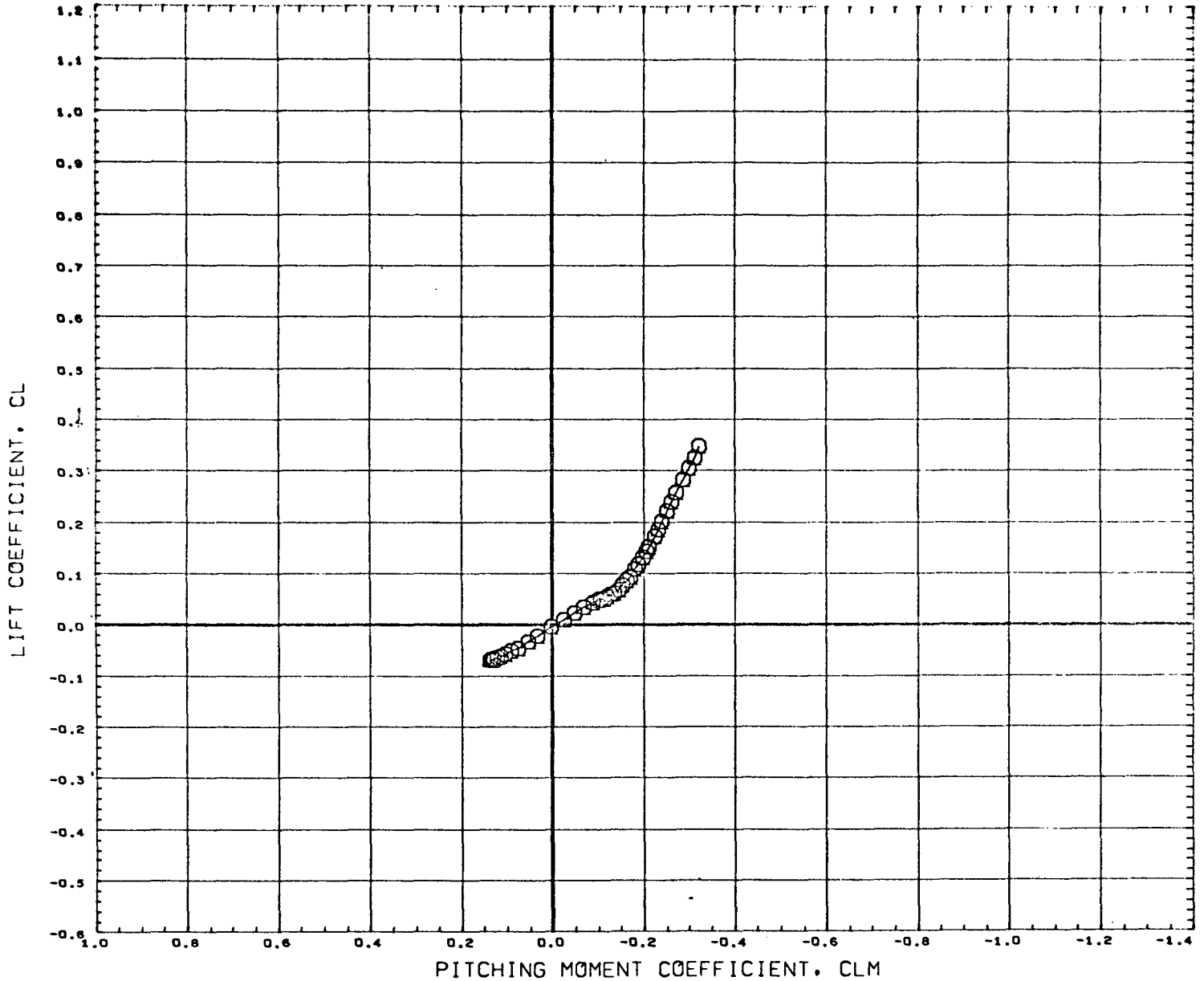
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .98

PAGE 519

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806) MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807) DATA NOT AVAILABLE FOR ALL CONDITIONS

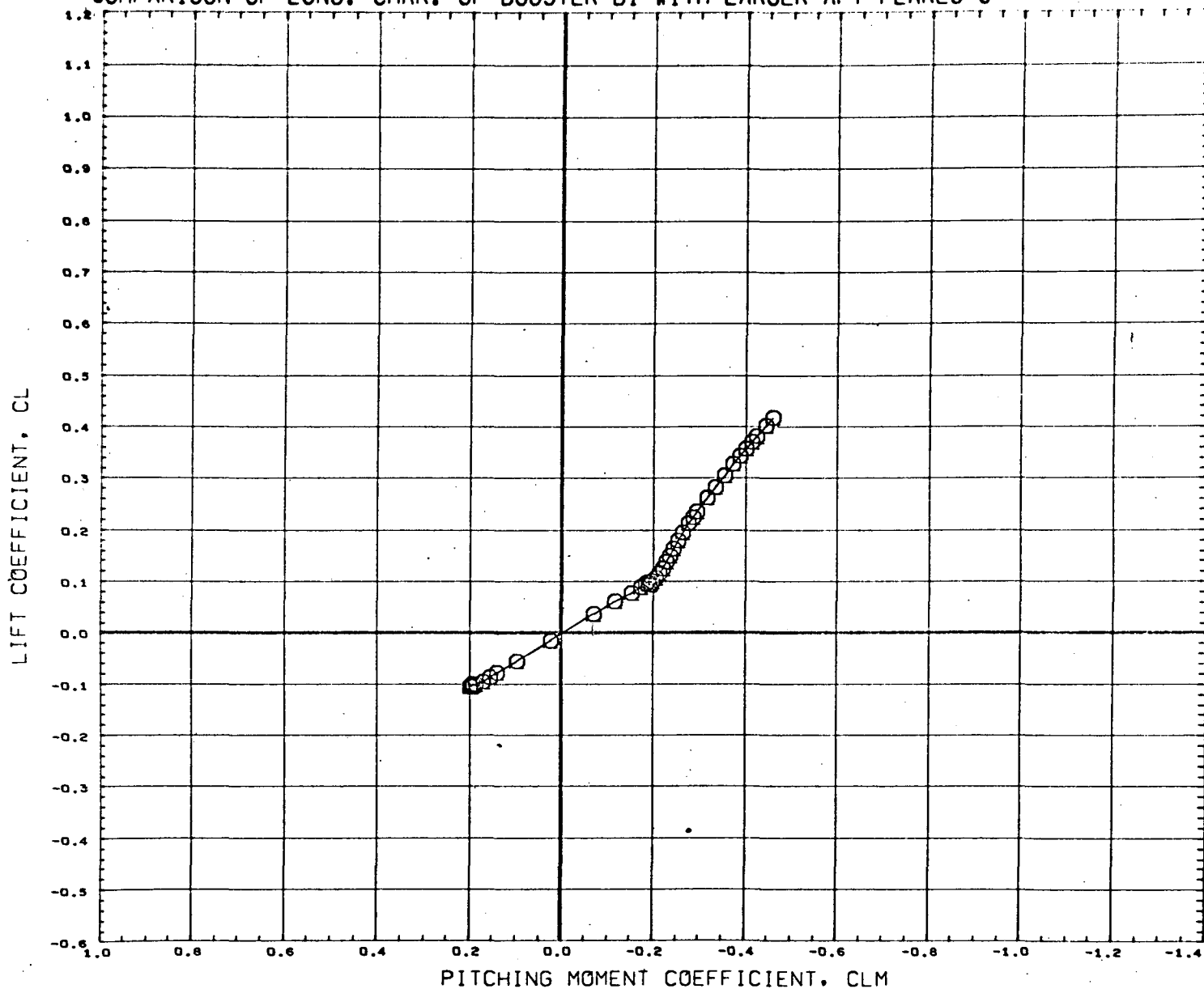
BETA
 0.000
 0.000


REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.09

PAGE 520

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (C07806)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (C07807) DATA NOT AVAILABLE FOR ALL CONDITIONS

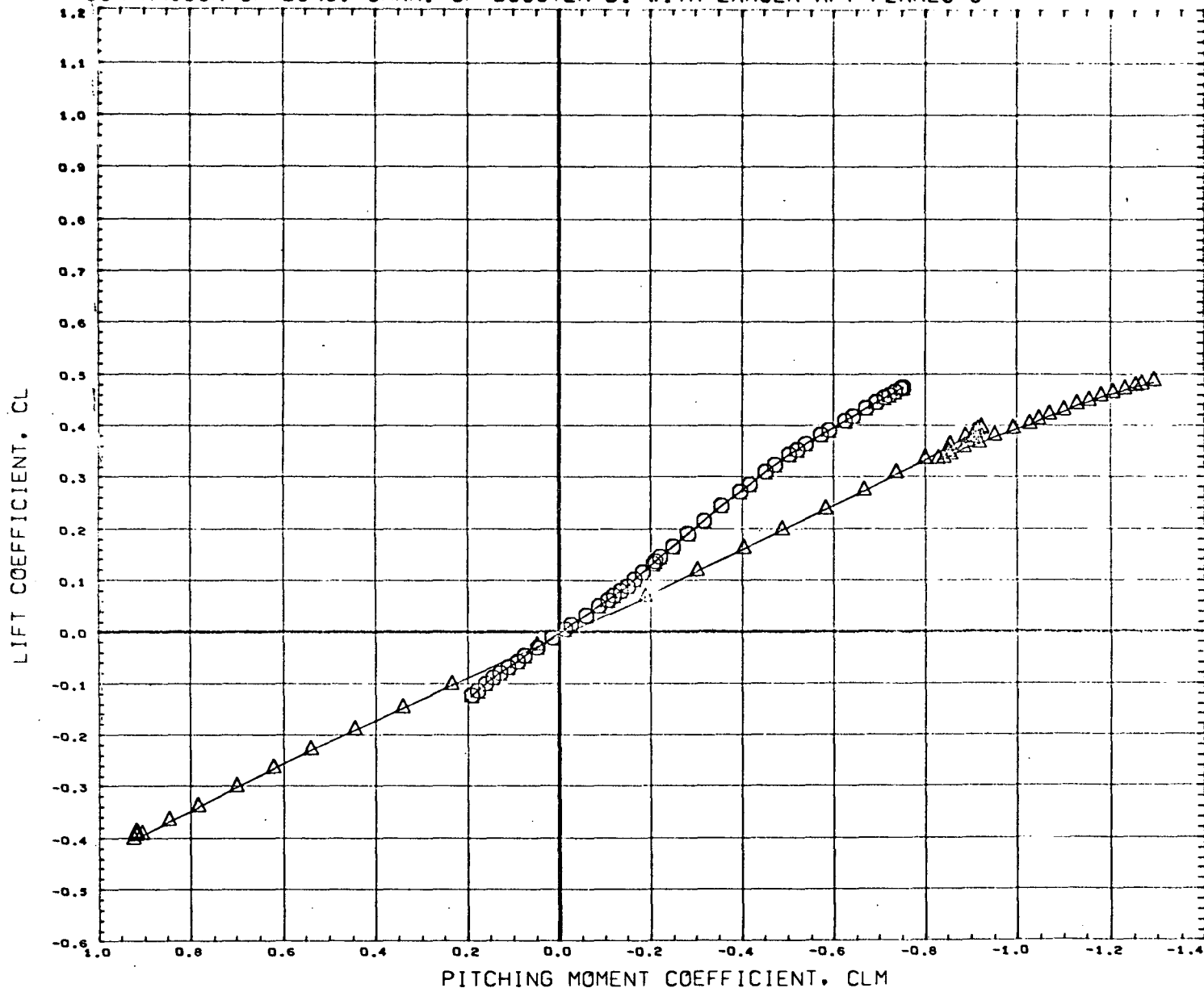
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 521

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07806)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
(C07807)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1S2

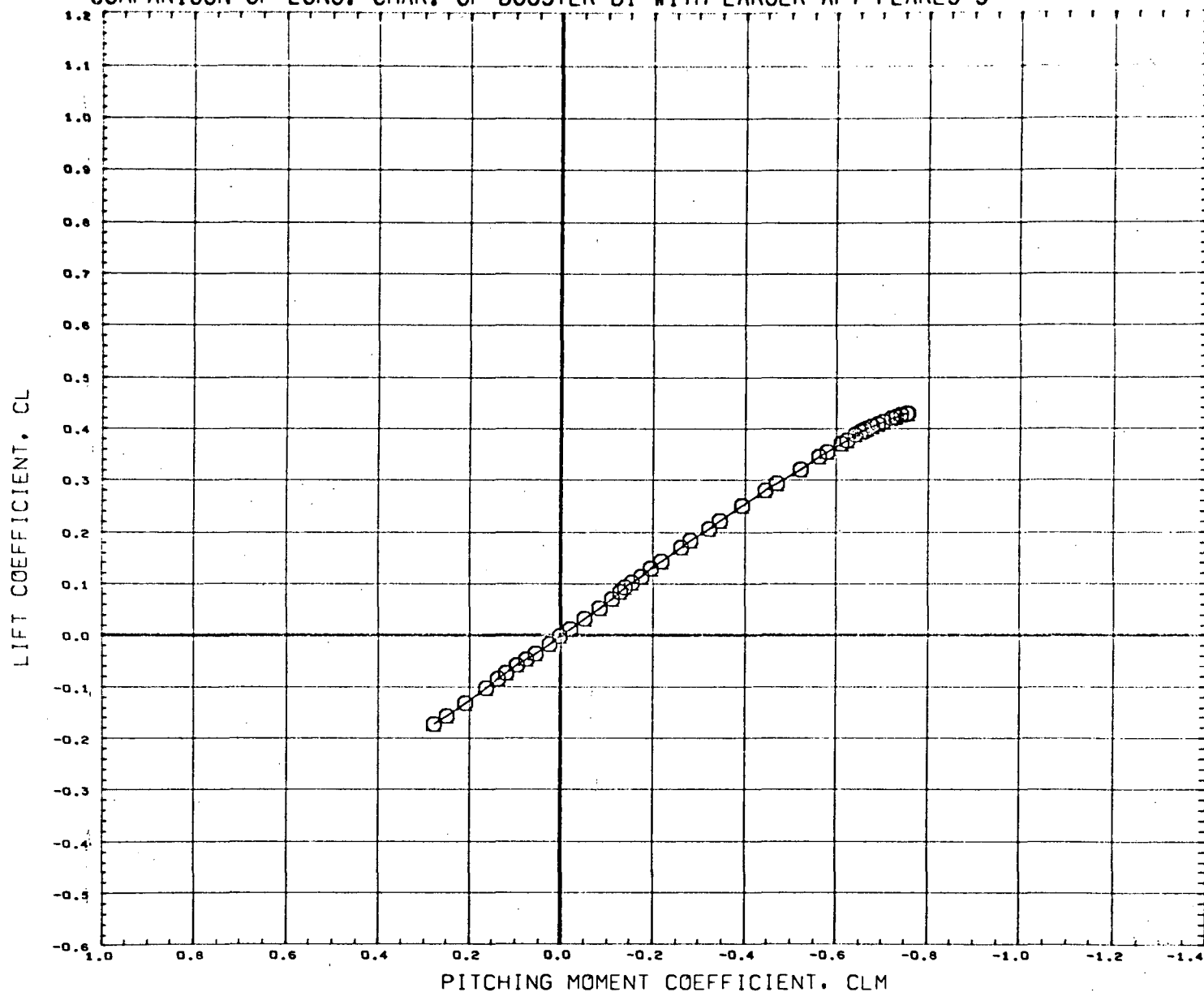
BETA
0.000
0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE


MACH 2.50

PAGE 522

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH LARGER AFT FLARES S



PITCHING MOMENT COEFFICIENT, CLM

DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7806)  MDAC S-222 BOOSTER ALONE (NOM. CG) B1S1
 (CD7807)  DATA NOT AVAILABLE FOR ALL CONDITIONS

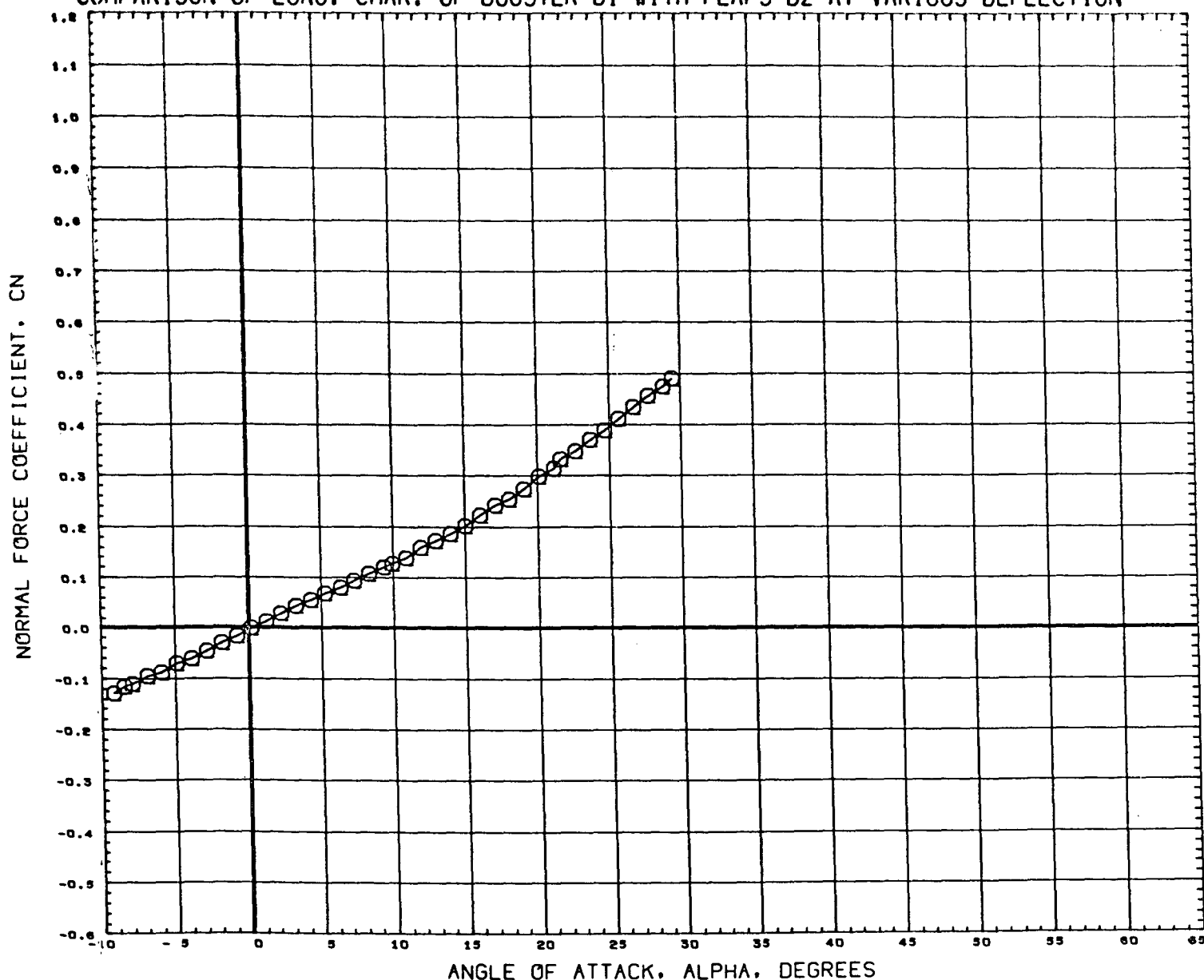
BETA
 0.000
 0.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 4.47

PAGE 523

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) \square	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) \triangle	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) \diamond	DATA NOT AVAILABLE FOR ALL CONDITIONS

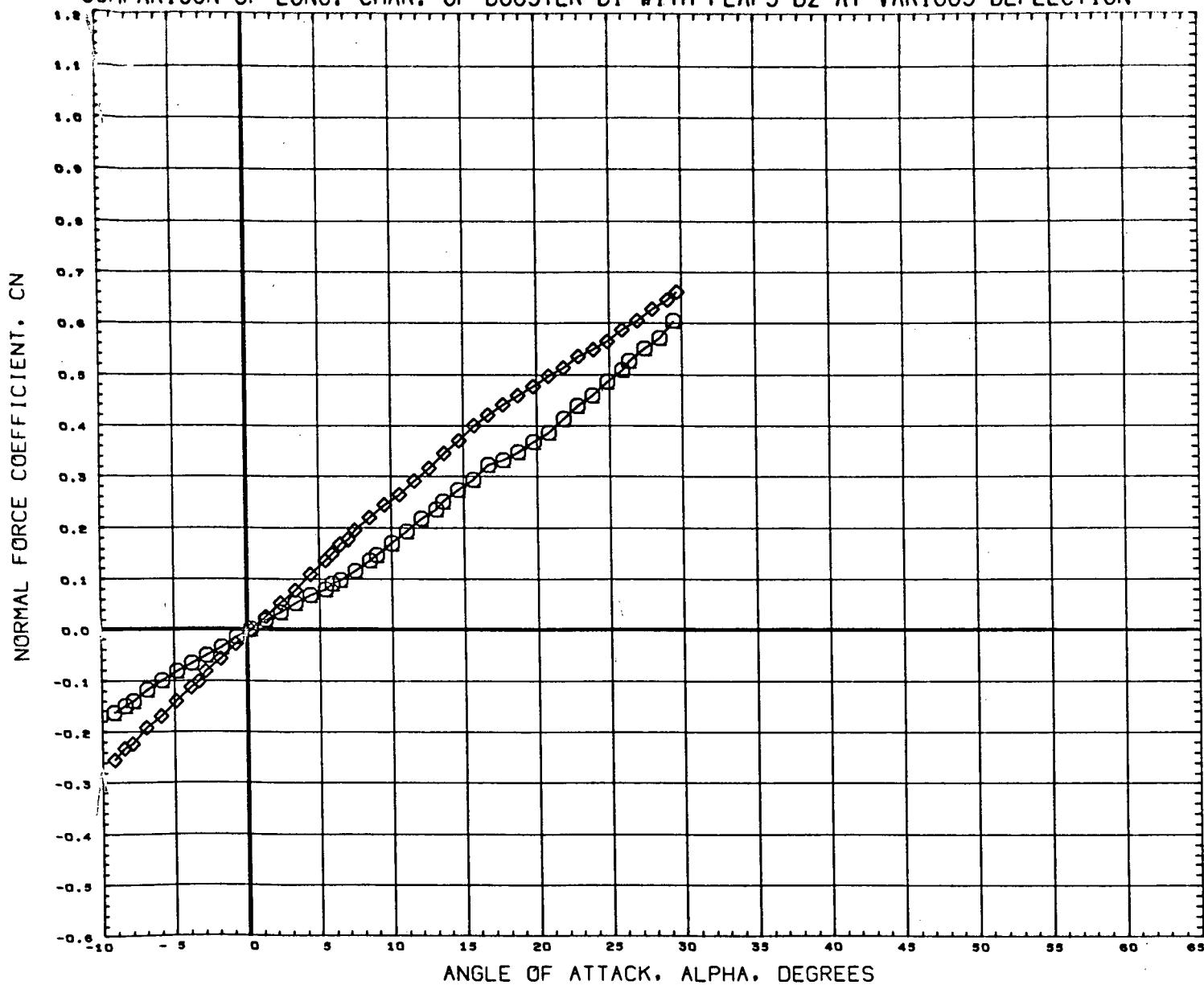
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 524

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

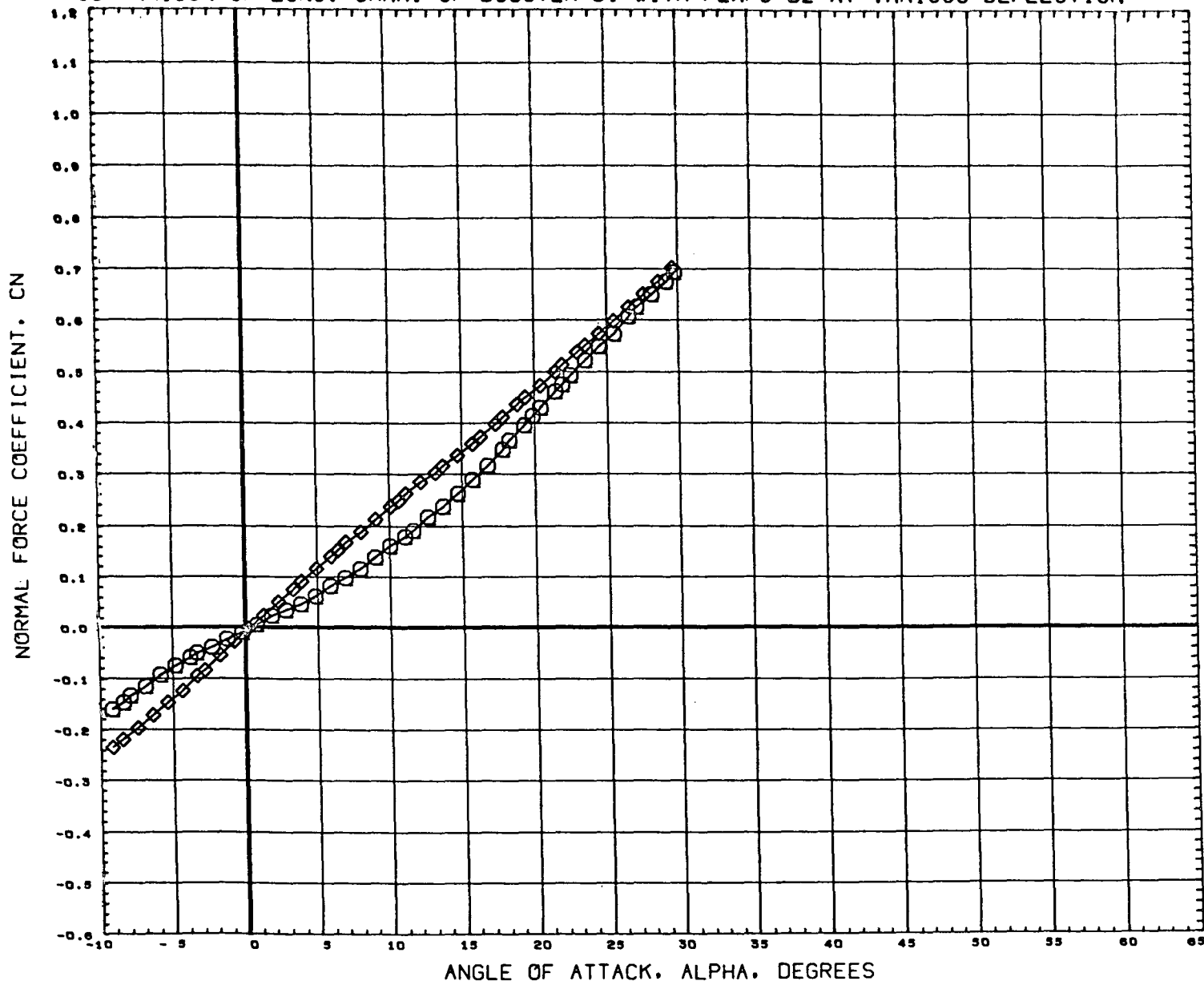
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.9004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 525

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

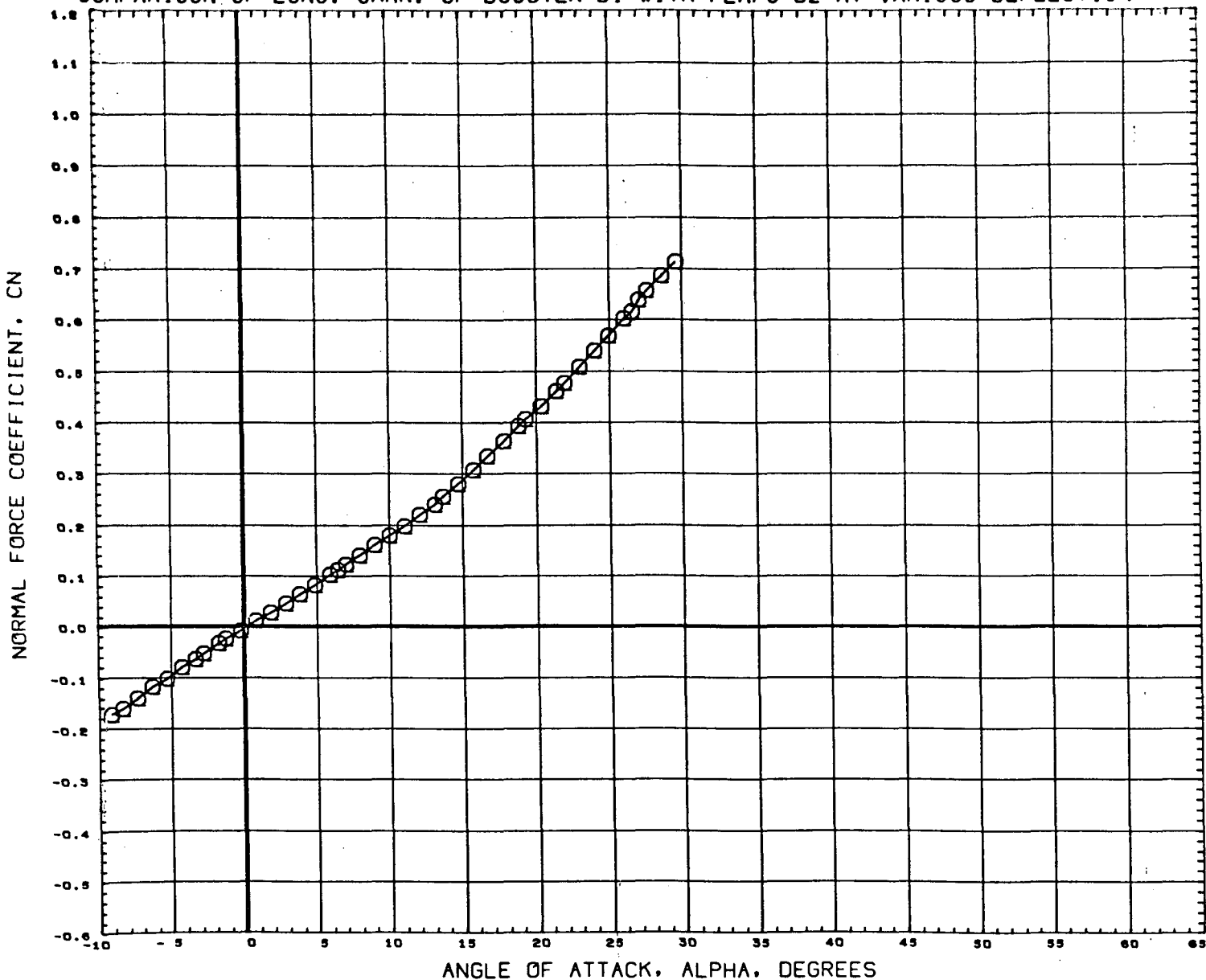
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.10

PAGE 526

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

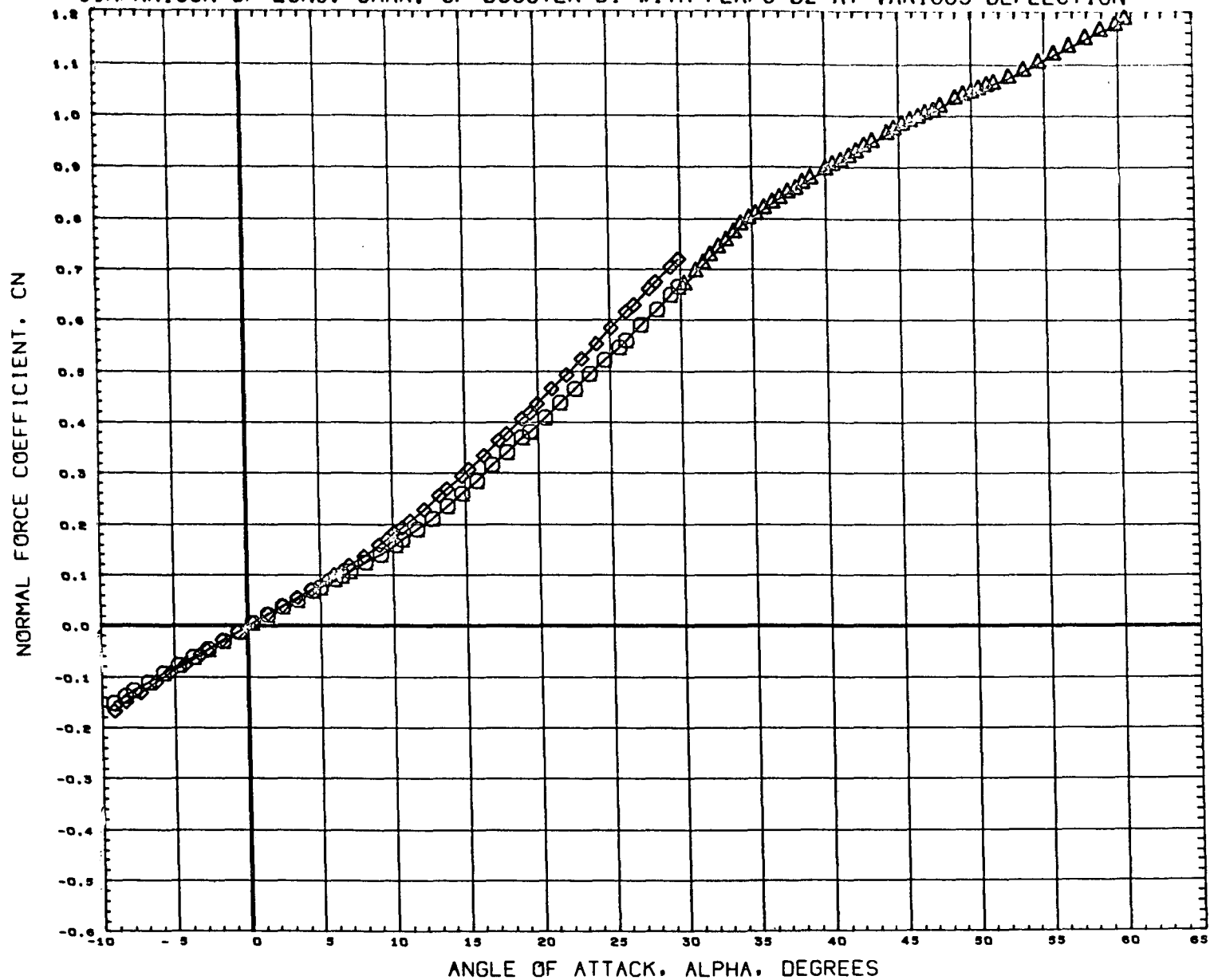
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.51

PAGE 527

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

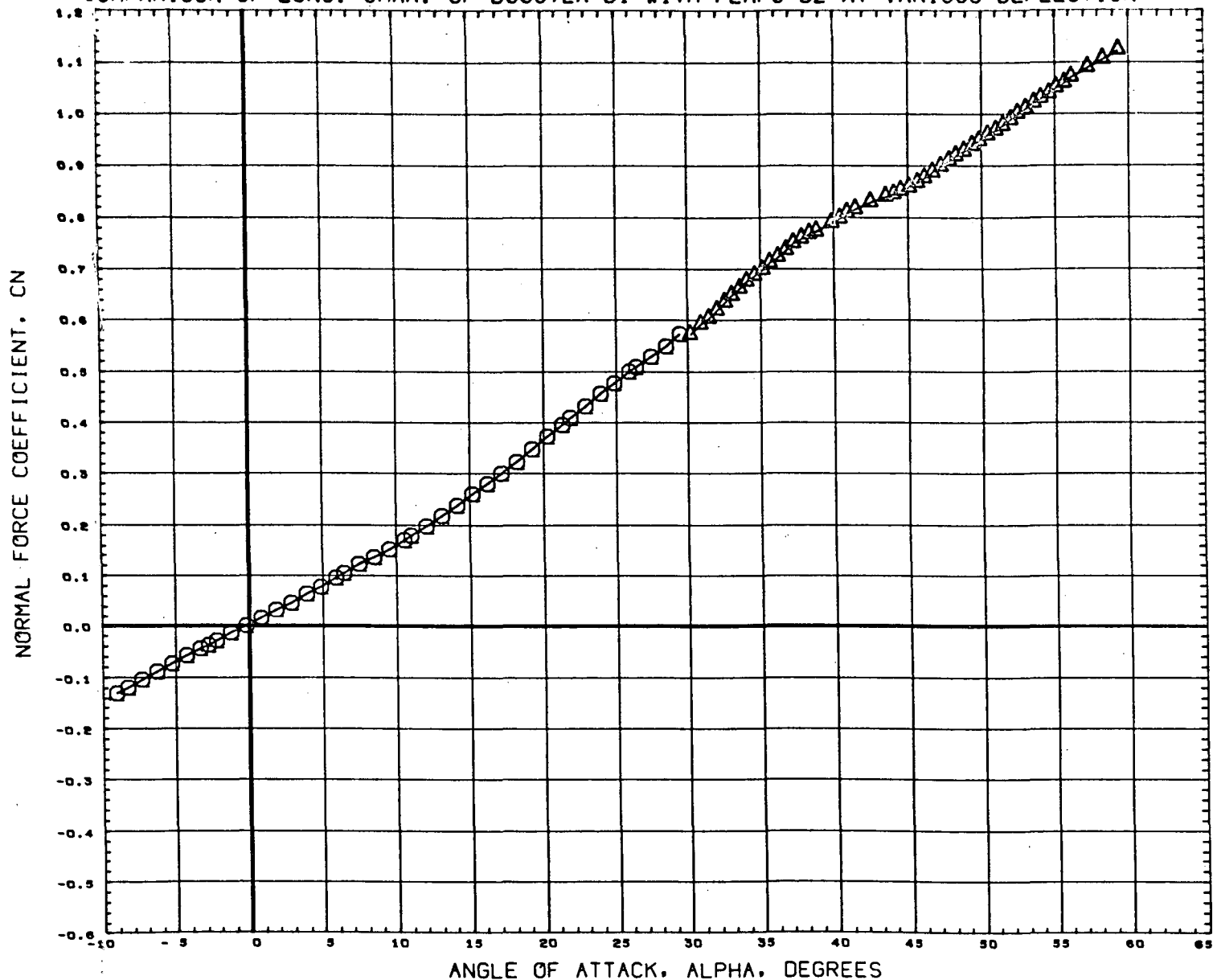
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 528

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7608) \bigcirc MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7609) \triangle MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7610) \diamond DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 45.000

REFERENCE INFORMATION

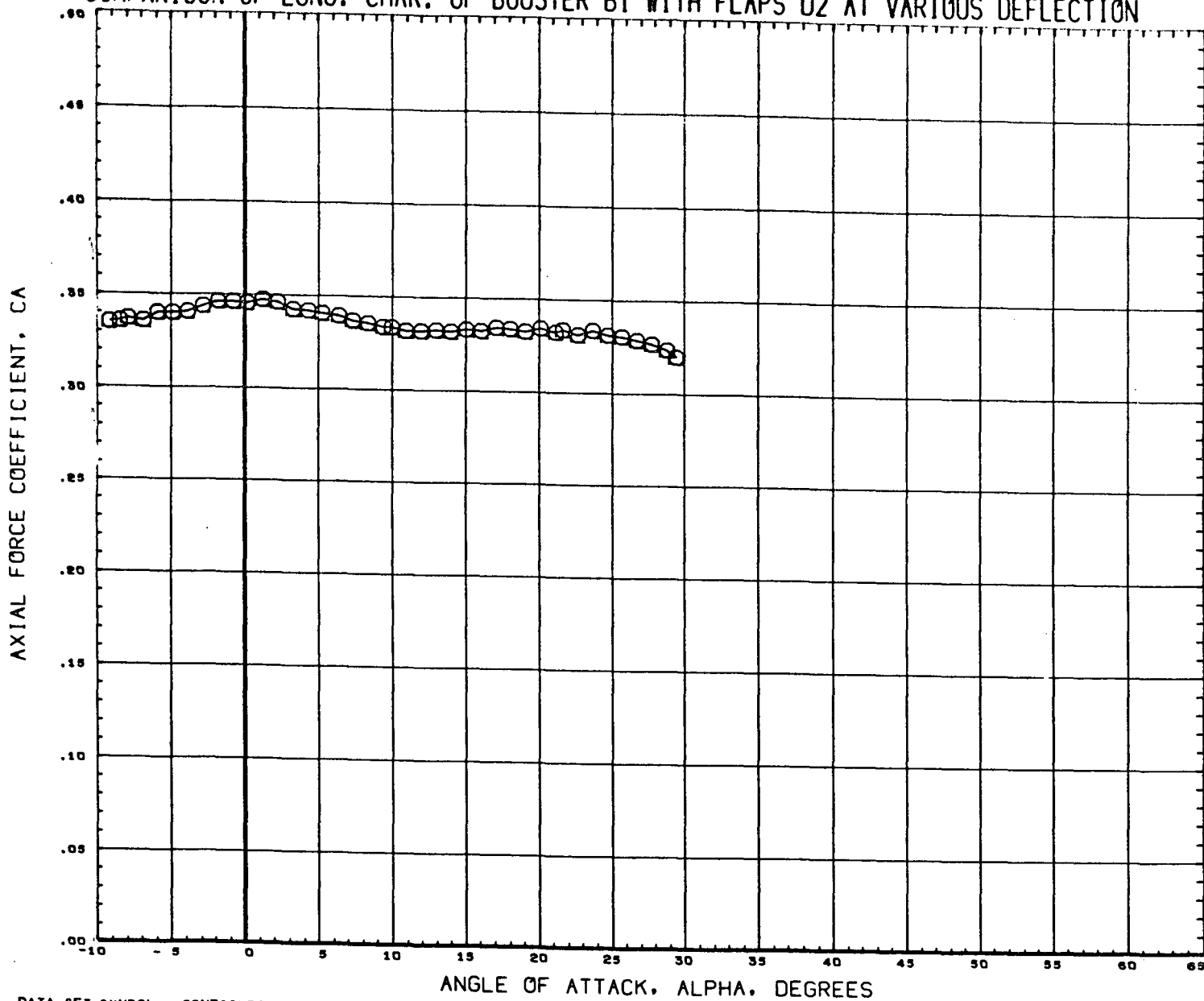
SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH

4.47

PAGE 529

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



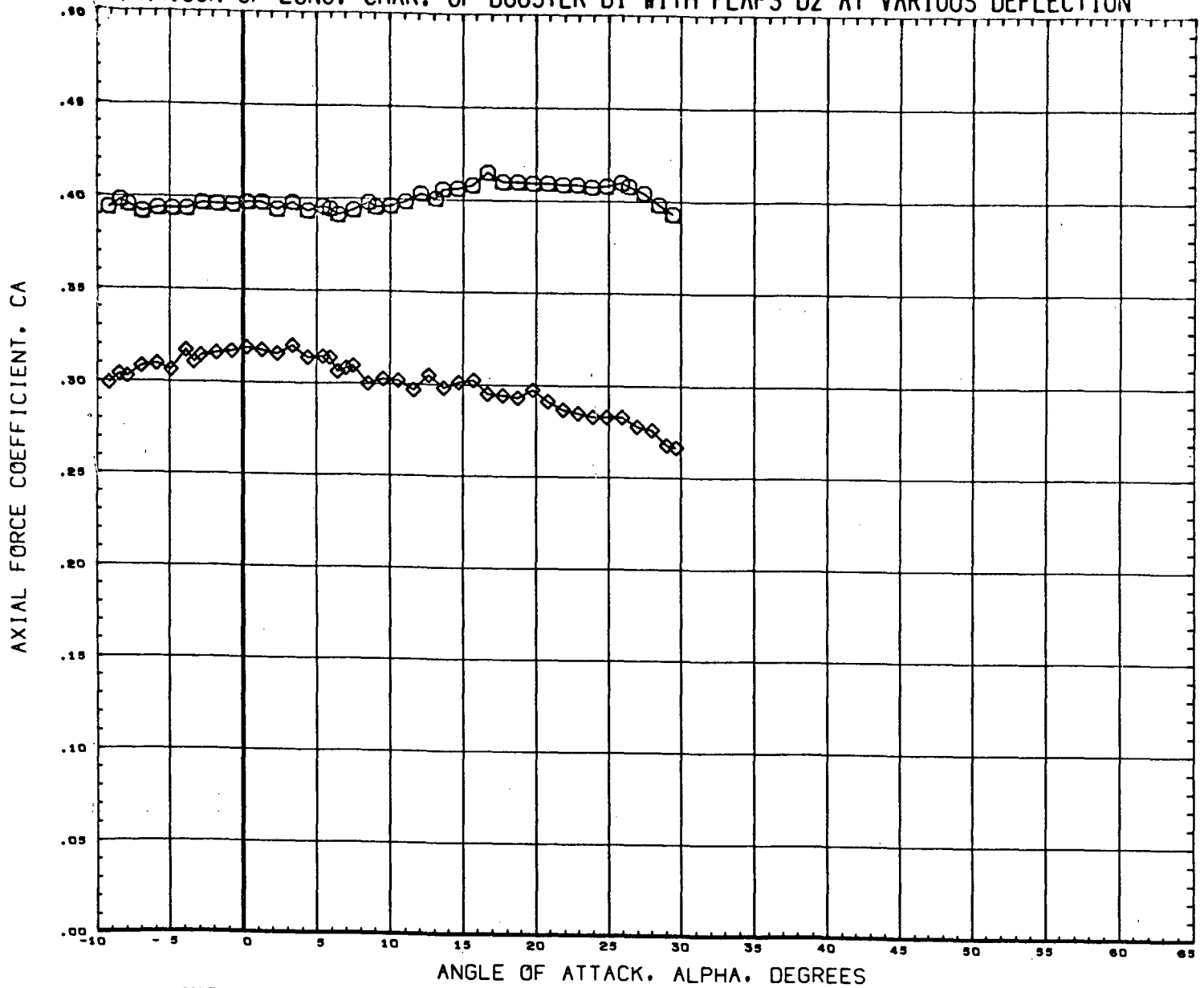
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



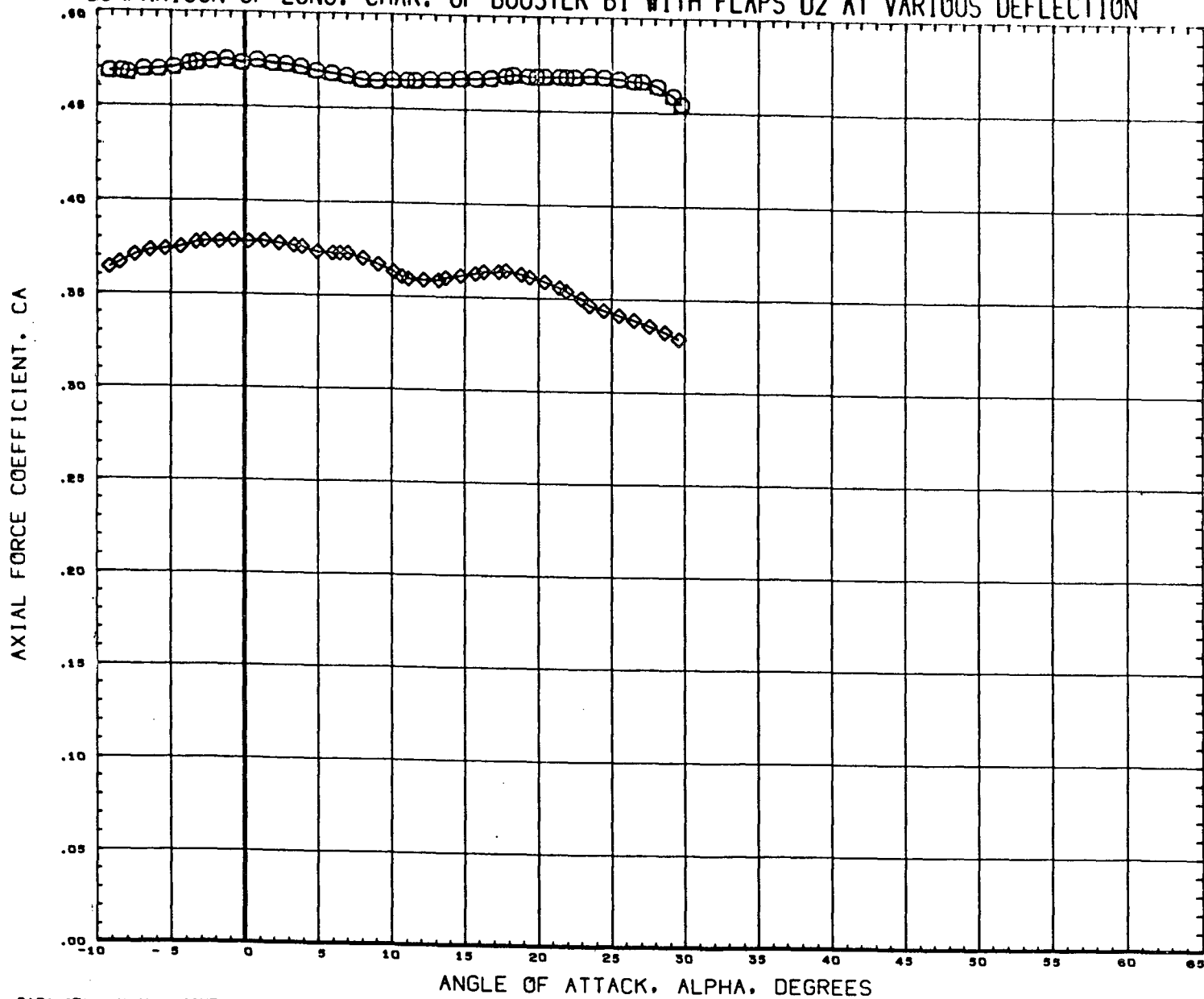
DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) ◇ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7808) \bigcirc MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

(CD7809) \triangle DATA NOT AVAILABLE FOR ALL CONDITIONS

(CD7810) \diamond MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA FLAPS

0.000 75.000

0.000 75.000

0.000 45.000

REFERENCE INFORMATION

SREF 3155.3040 SQ.FT.

LREF 609.5004 IN.

BREF 882.0004 IN.

XMRP 731.0004 IN.

YMRP 0.0000 IN.

ZMRP 0.0000 IN.

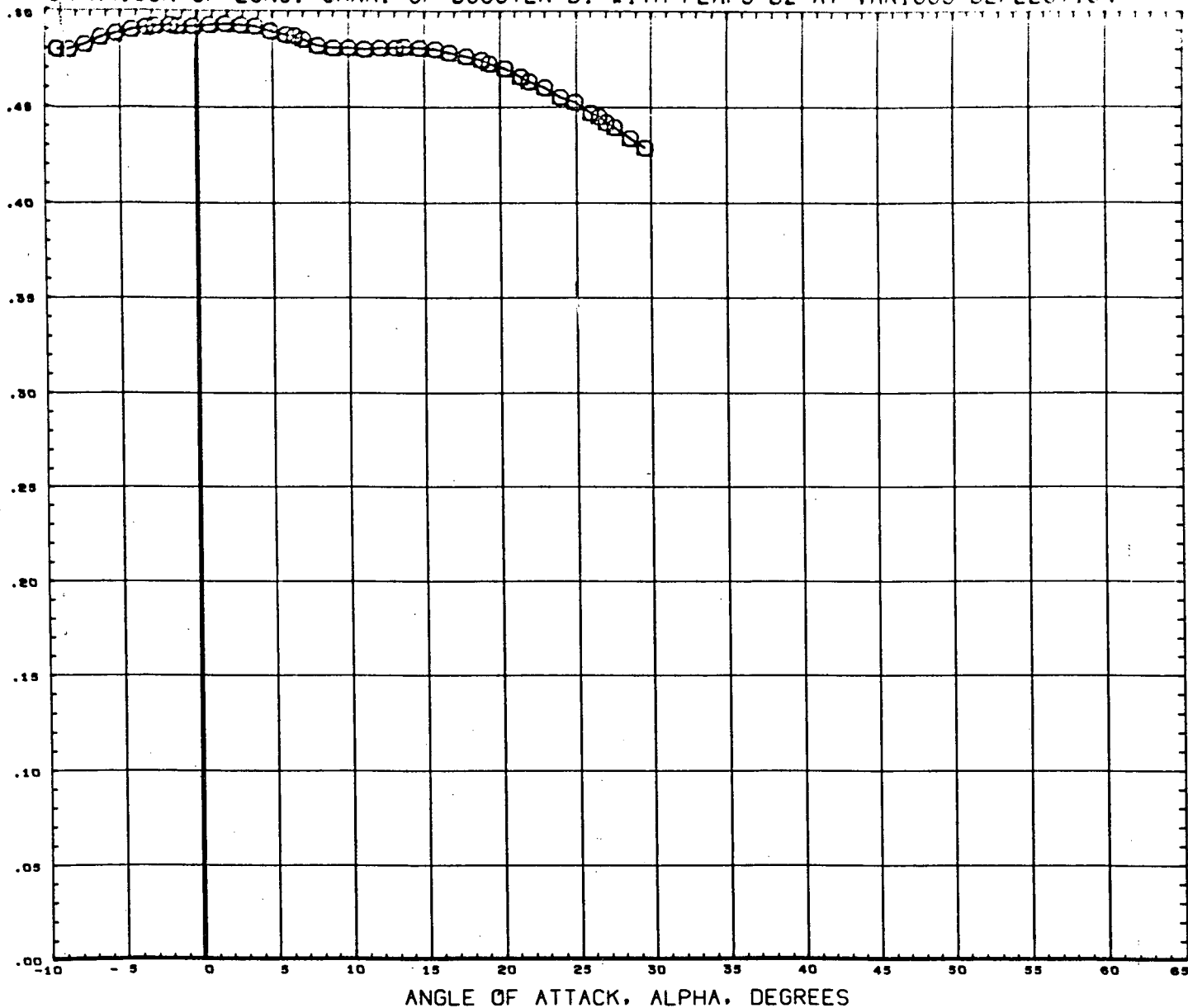
SCALE 0.0060 SCALE

MACH 1.10

PAGE 532

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

AXIAL FORCE COEFFICIENT, CA



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) \bigcirc	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) \triangle	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) \diamond	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

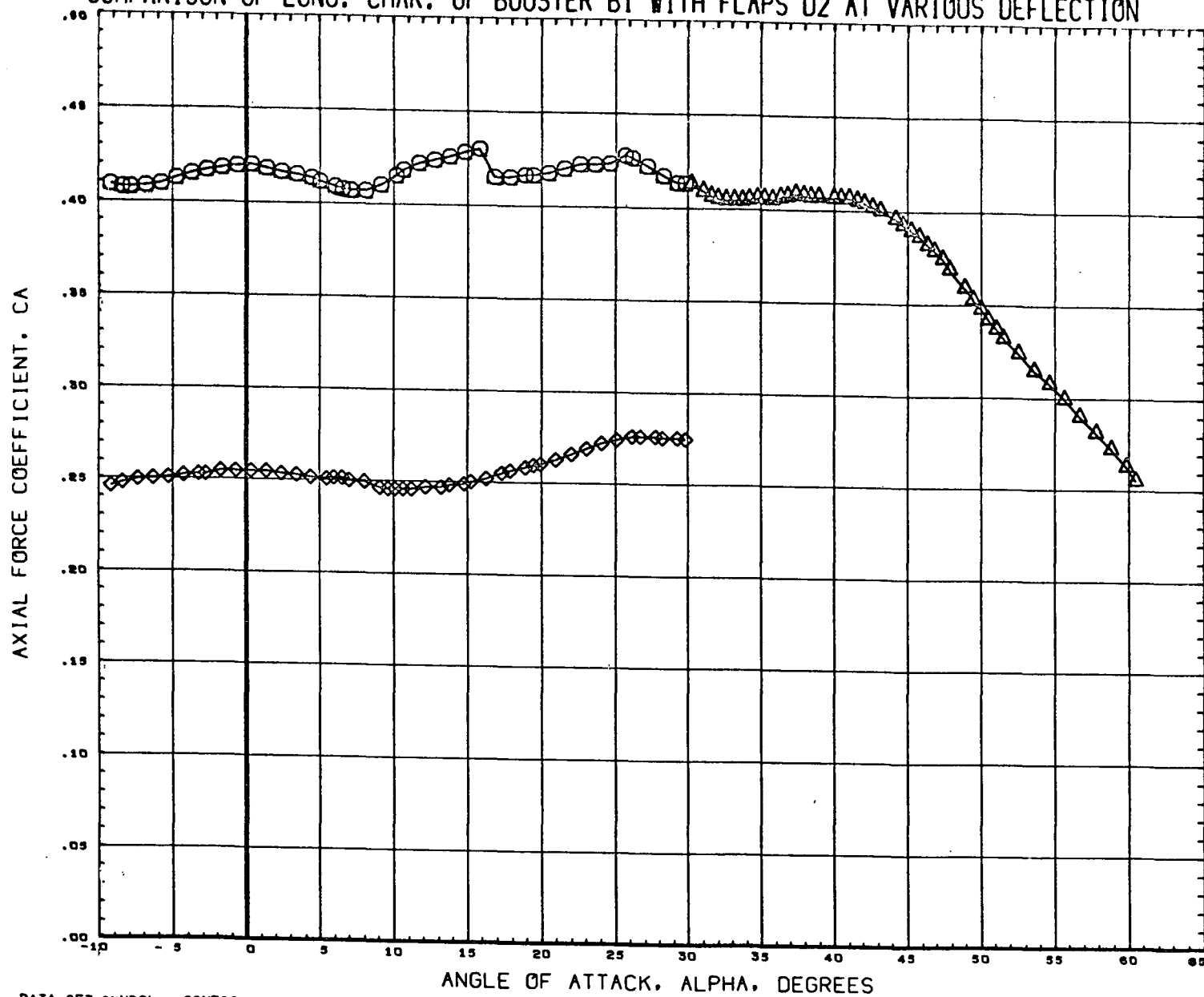
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 533

C.7

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(C07809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(C07810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

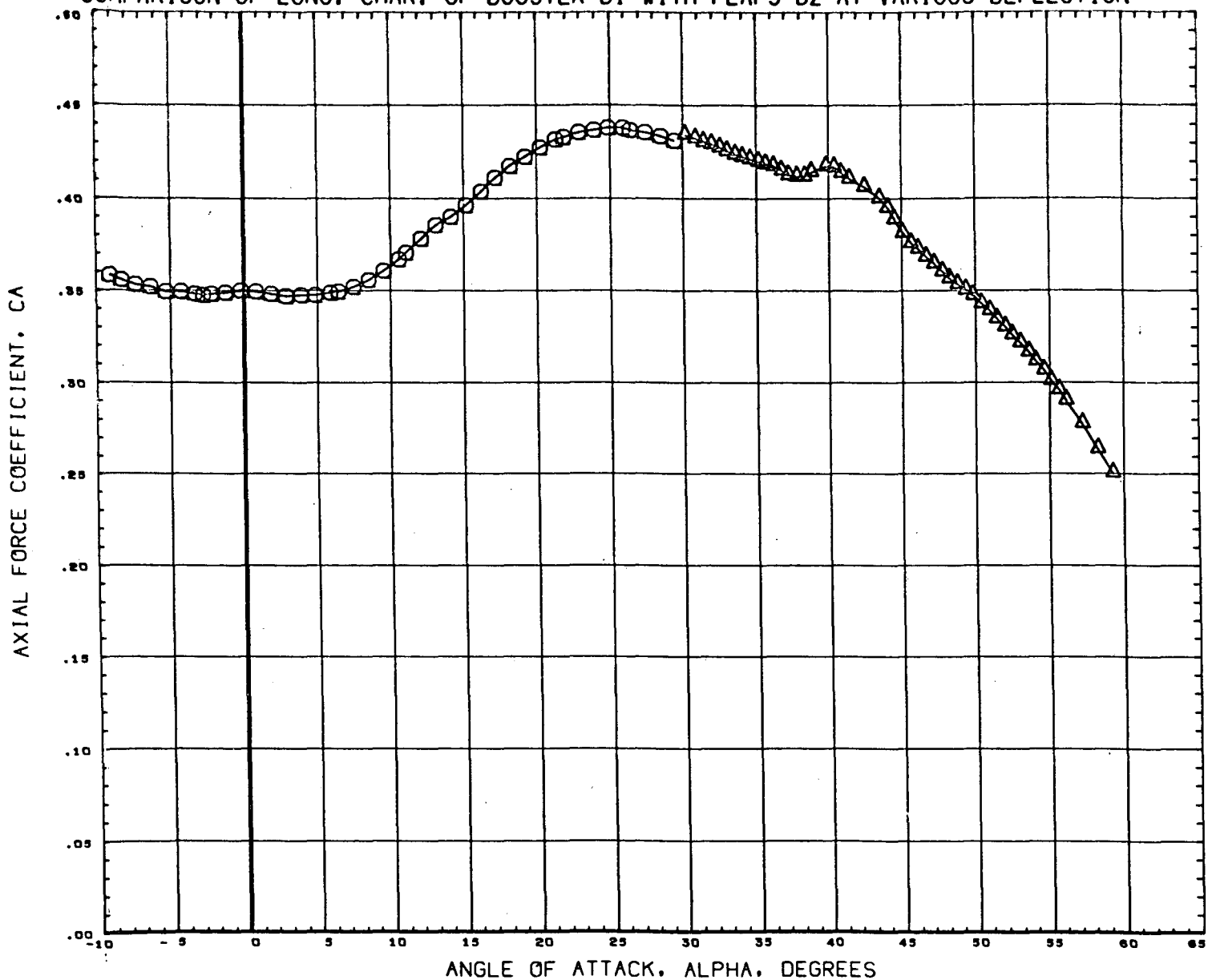
BETA	FLAPS
0.000	75.000
0.000	45.000
0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 534

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

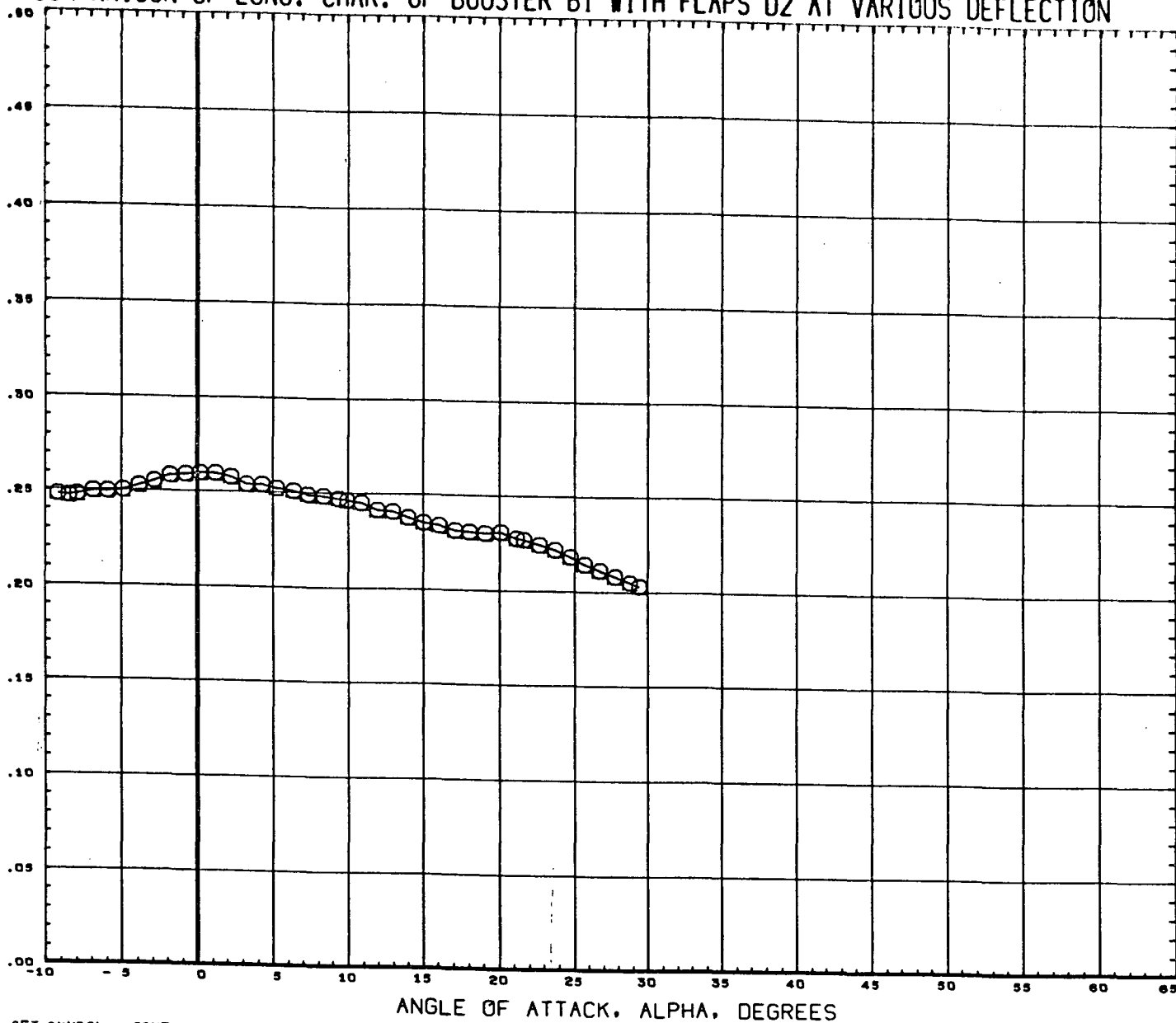
MACH

4.47

PAGE 535

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) ◇ DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 45.000

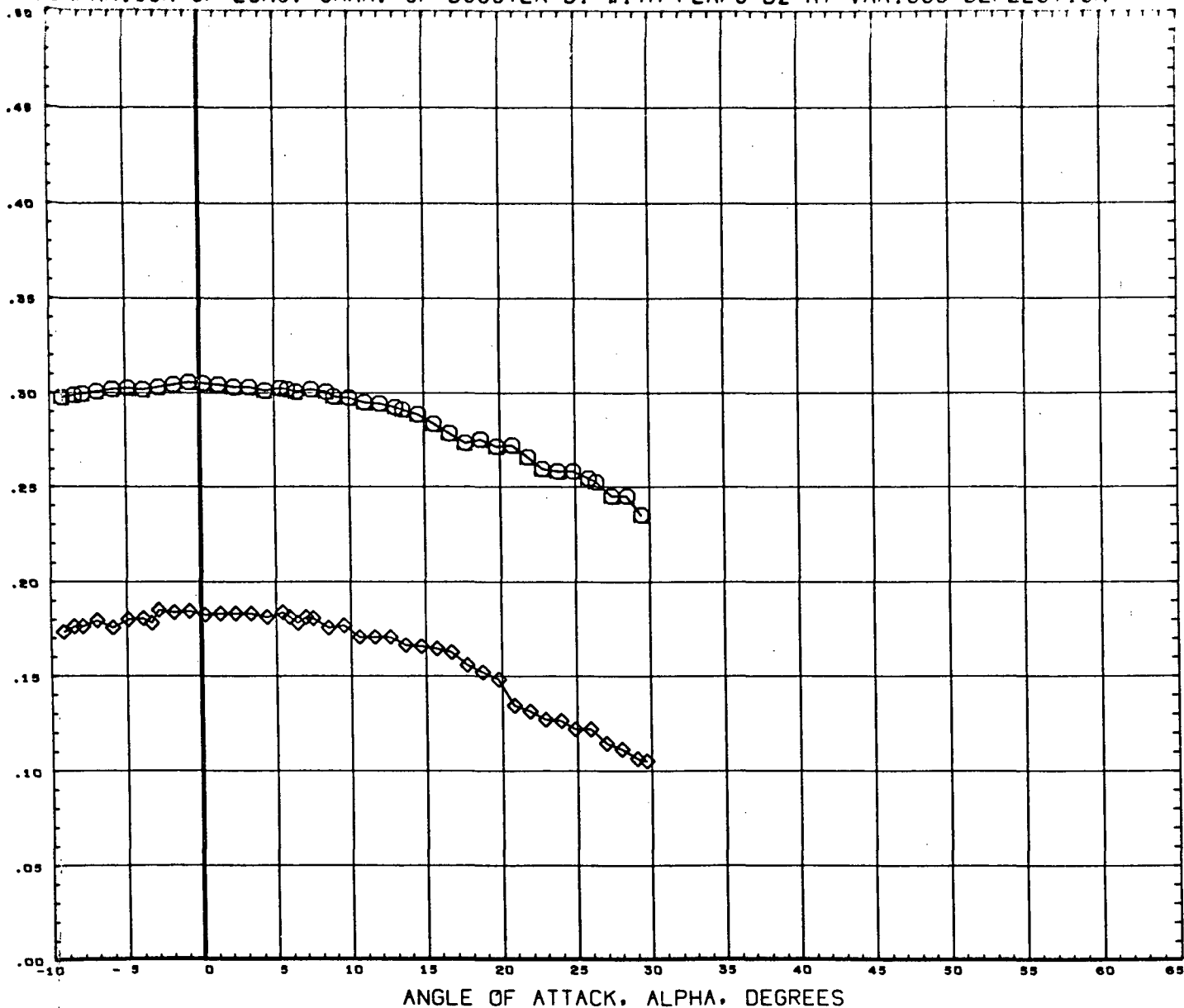
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .65

PAGE 536

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

FOREBODY AXIAL FORCE COEFFICIENT, CAF



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	△	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

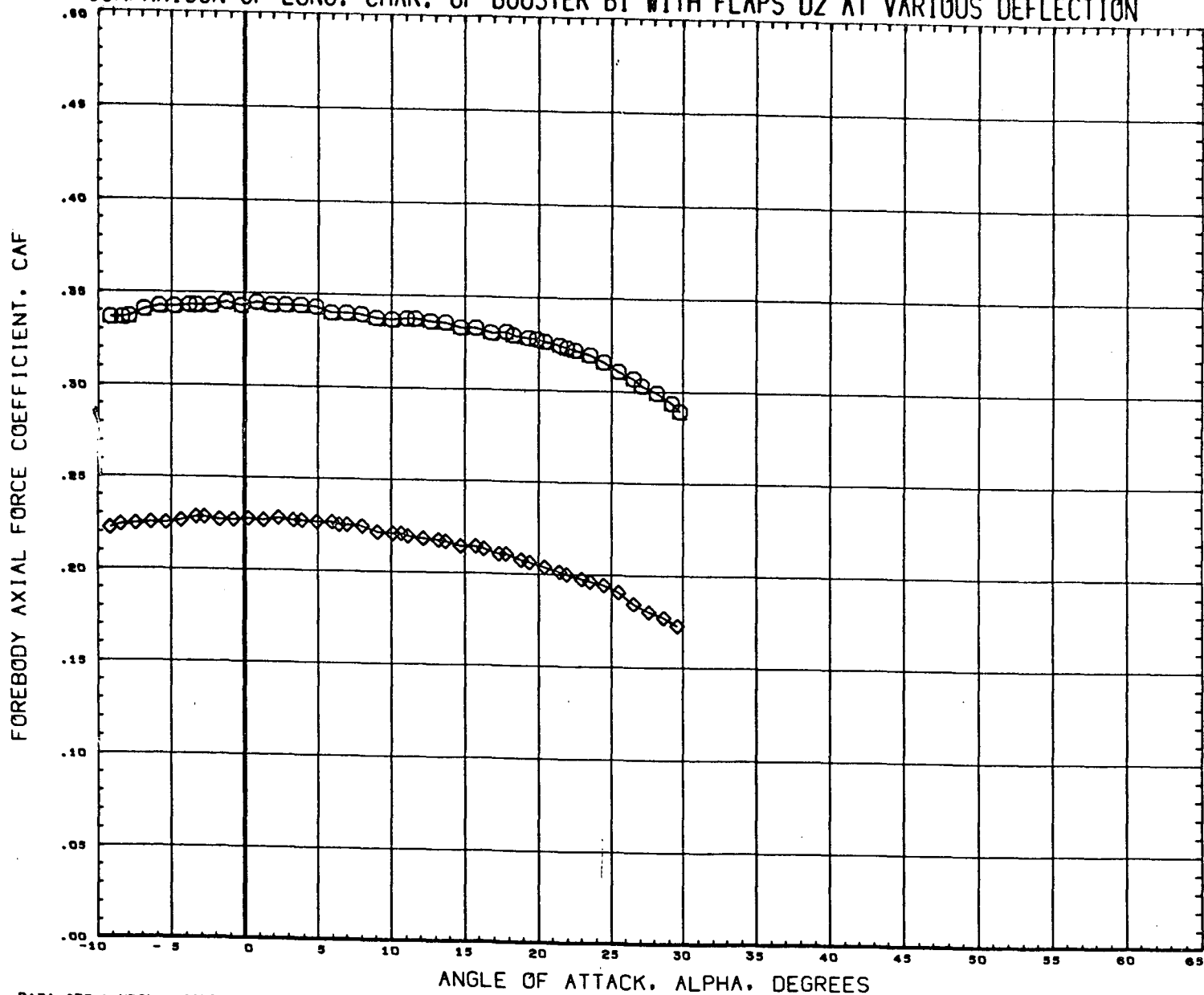
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 537

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) ◇ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

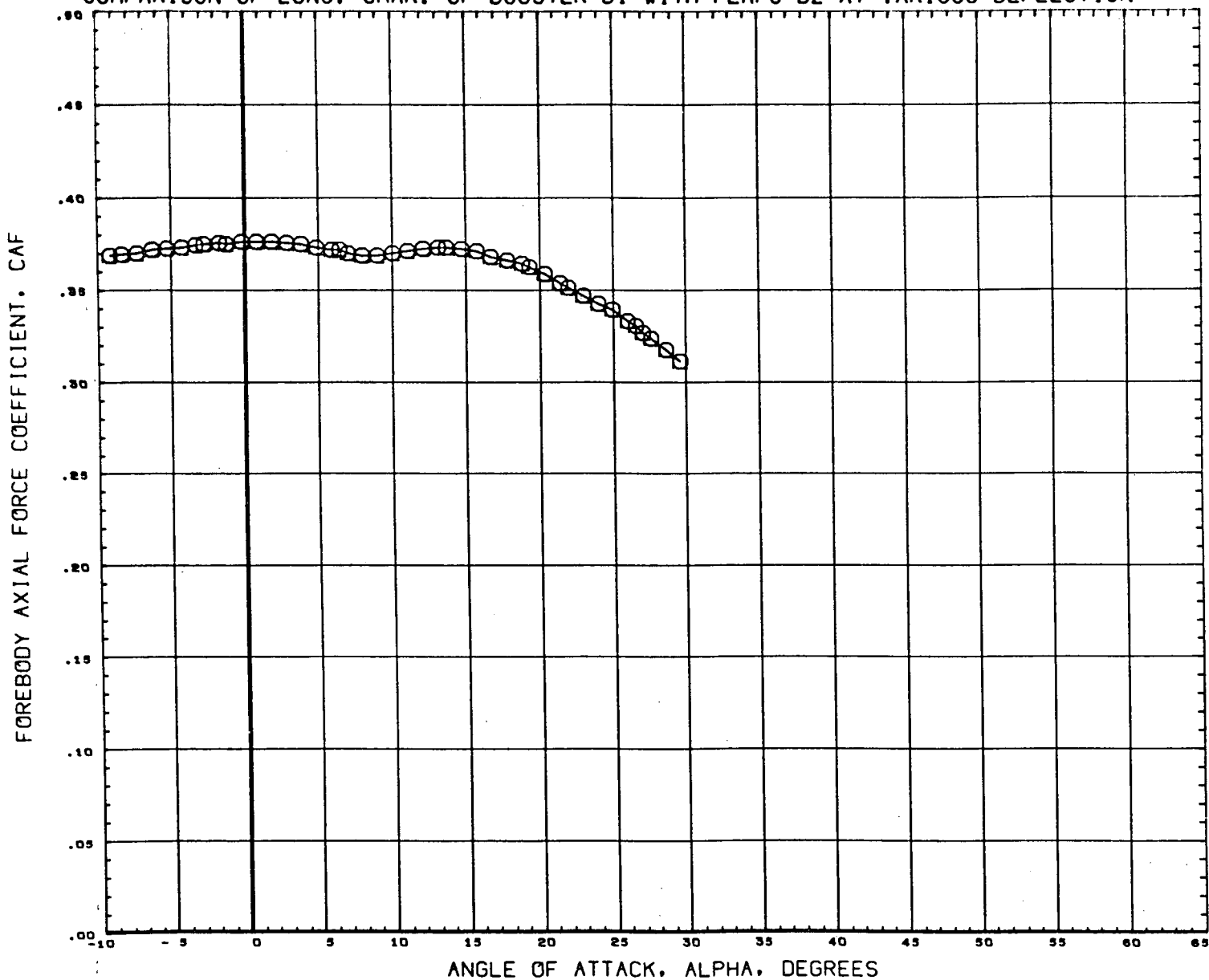
BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 45.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ. FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.10

PAGE 538

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

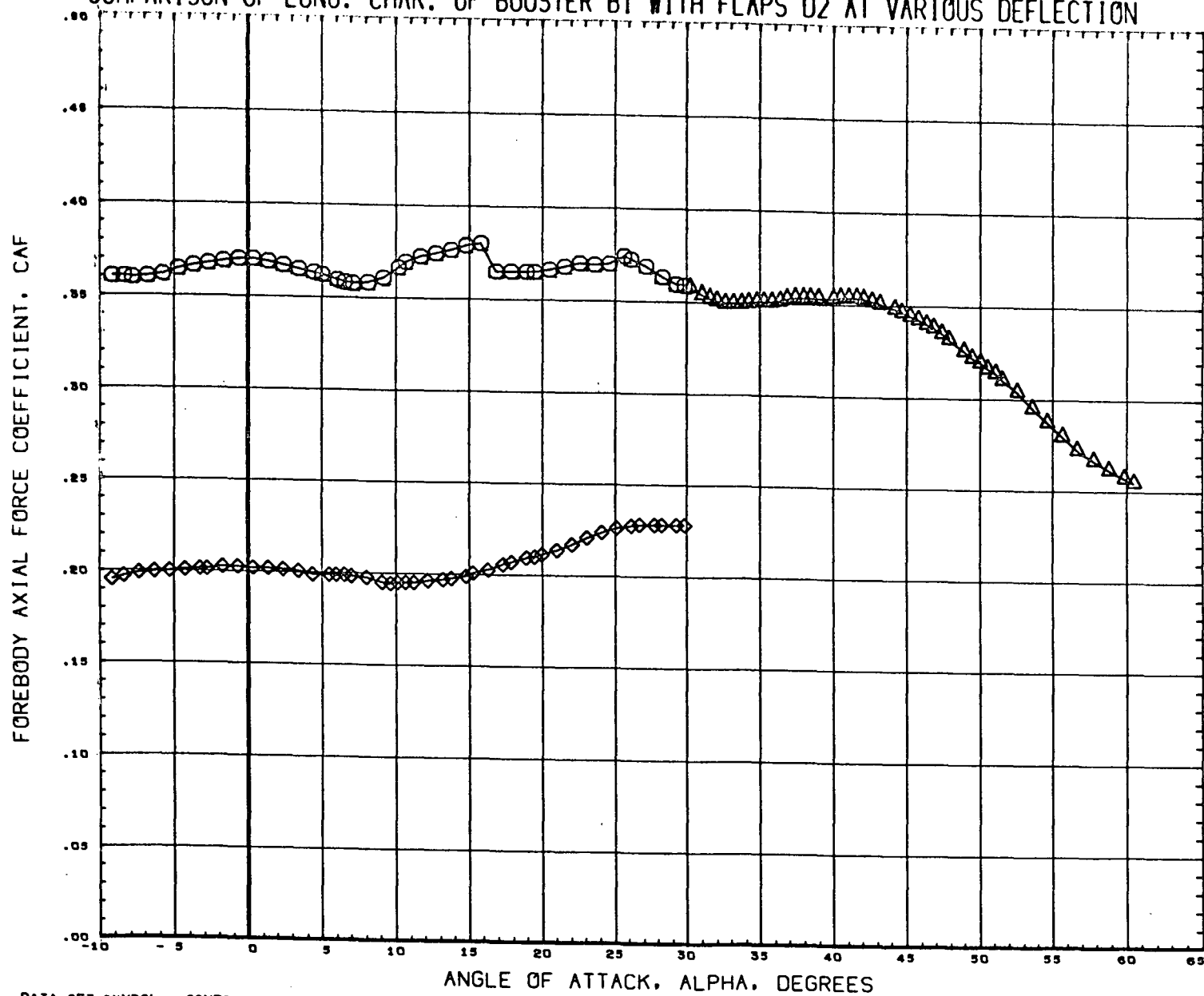
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 539

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

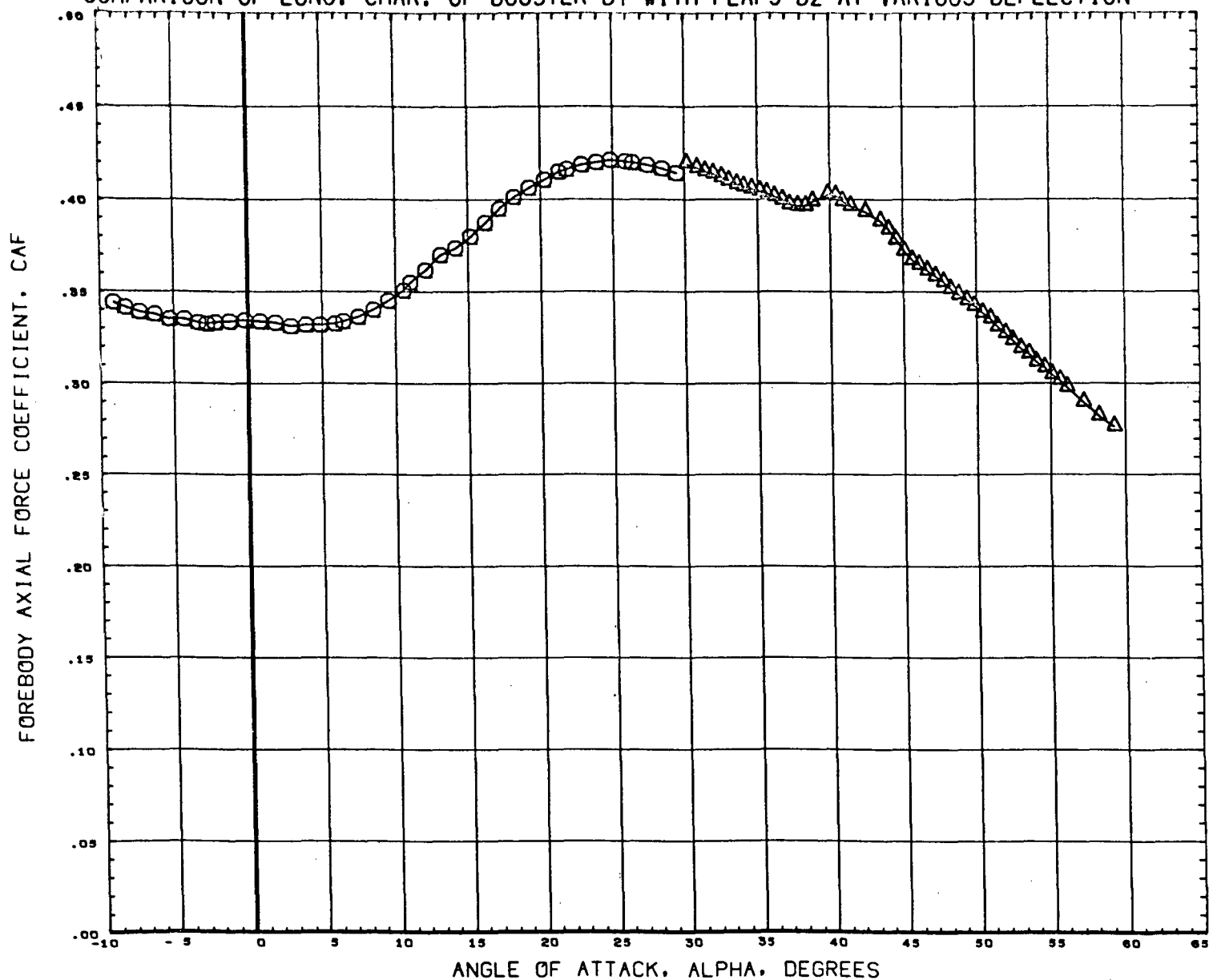
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 540

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

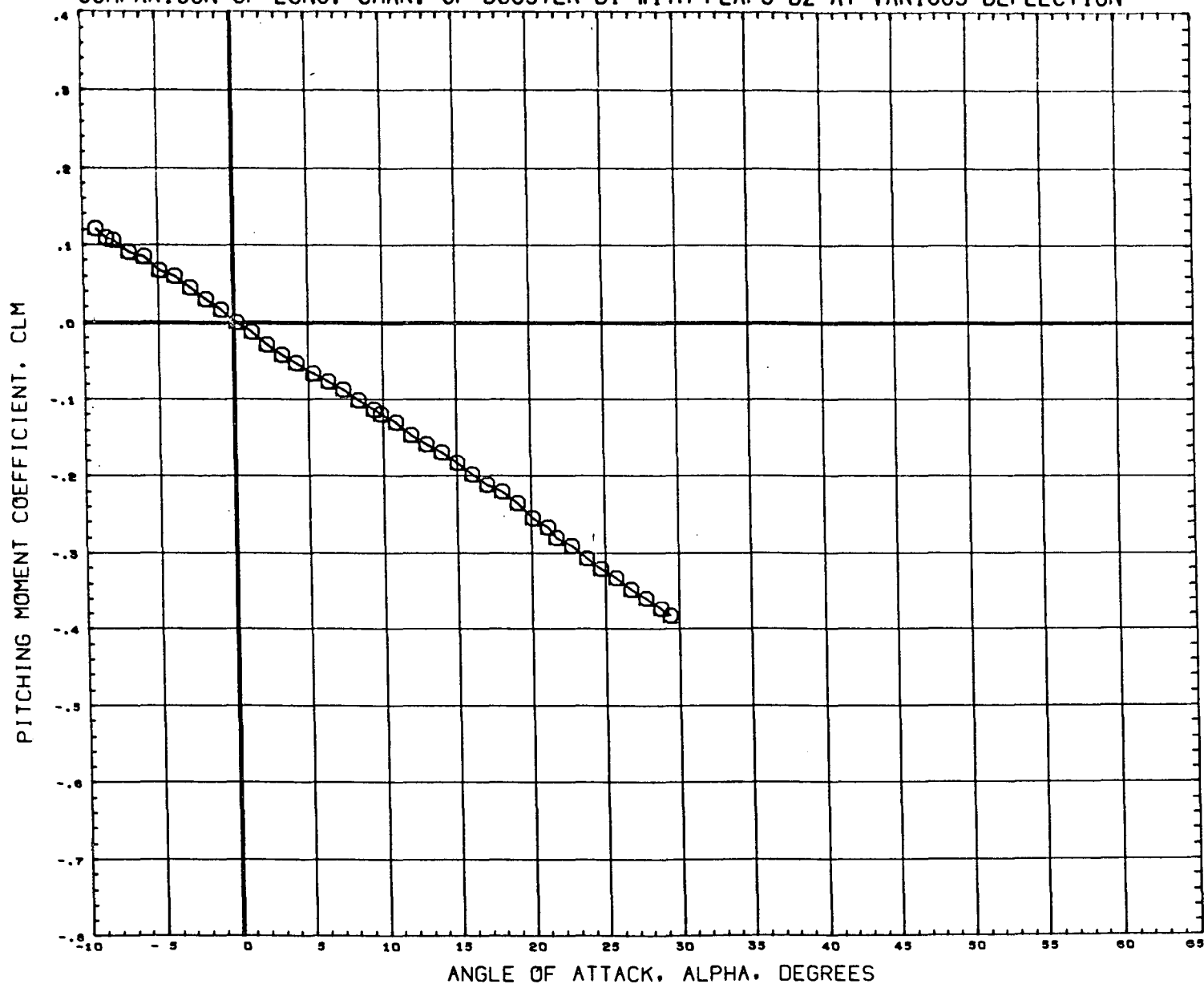
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0080	SCALE

MACH 4.47

PAGE 541

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) ◇ DATA NOT AVAILABLE FOR ALL CONDITIONS

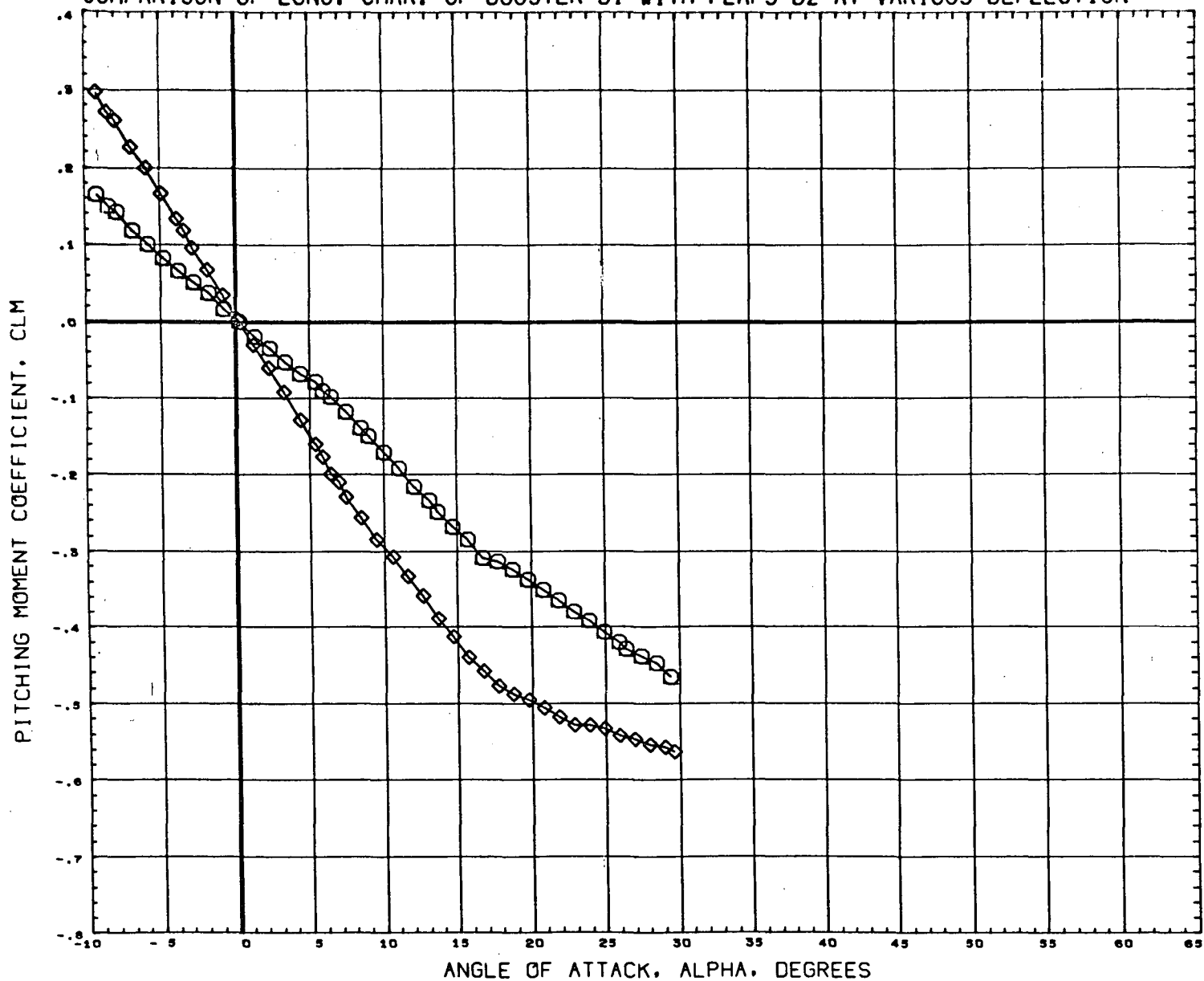
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 542

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

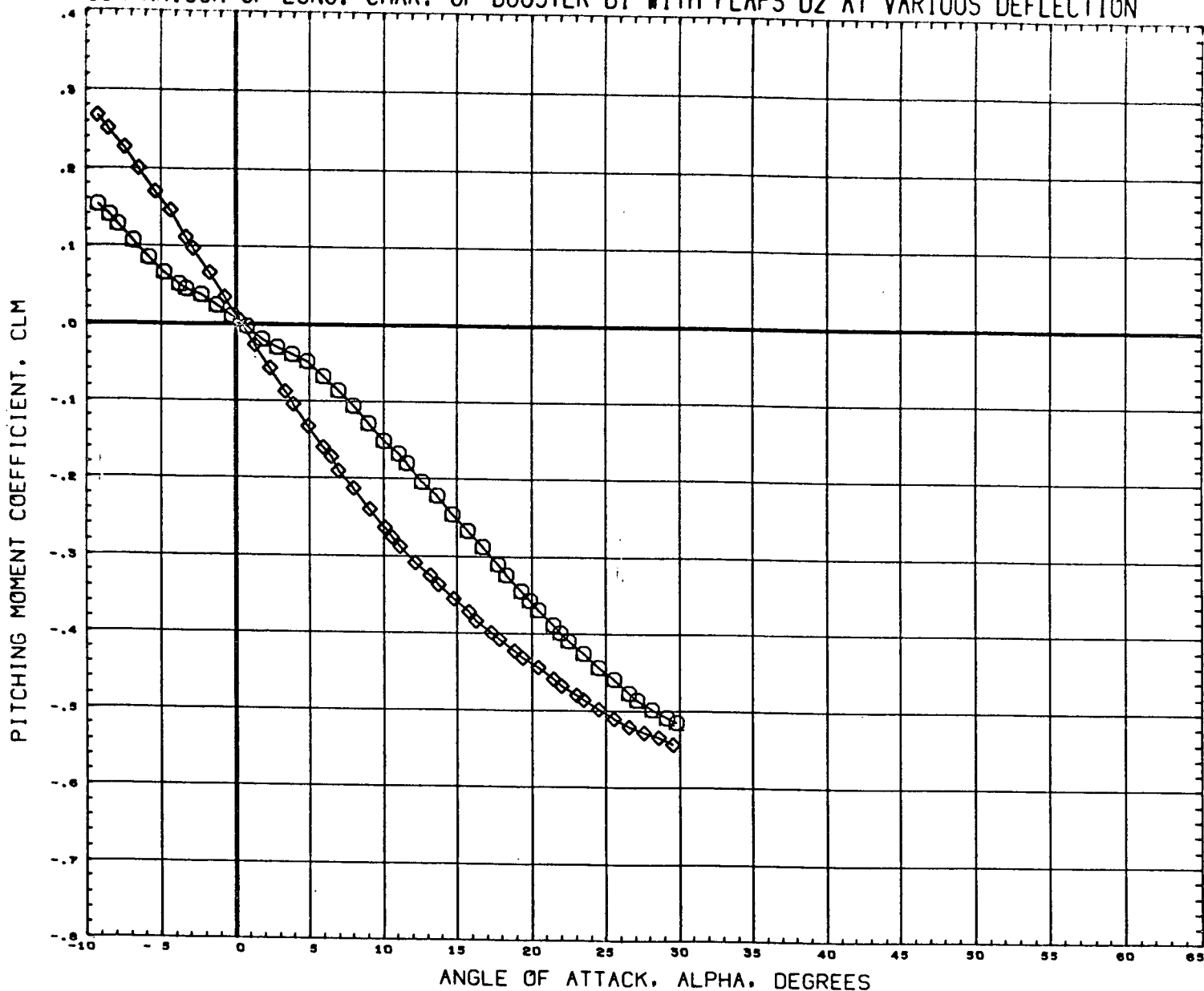
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 543

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

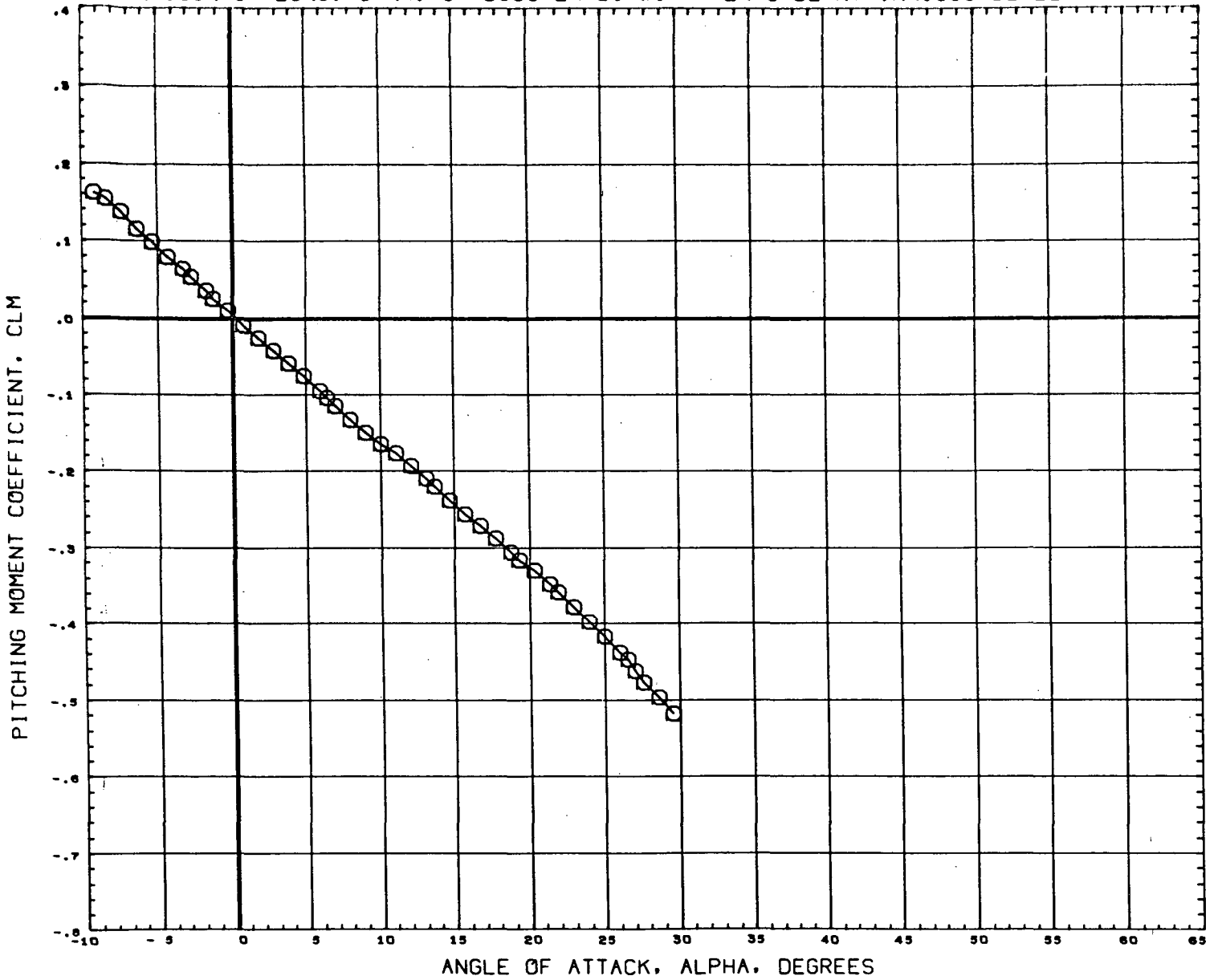
BETA	FLAPS
0.000	75.000
0.000	45.000
0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 544

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

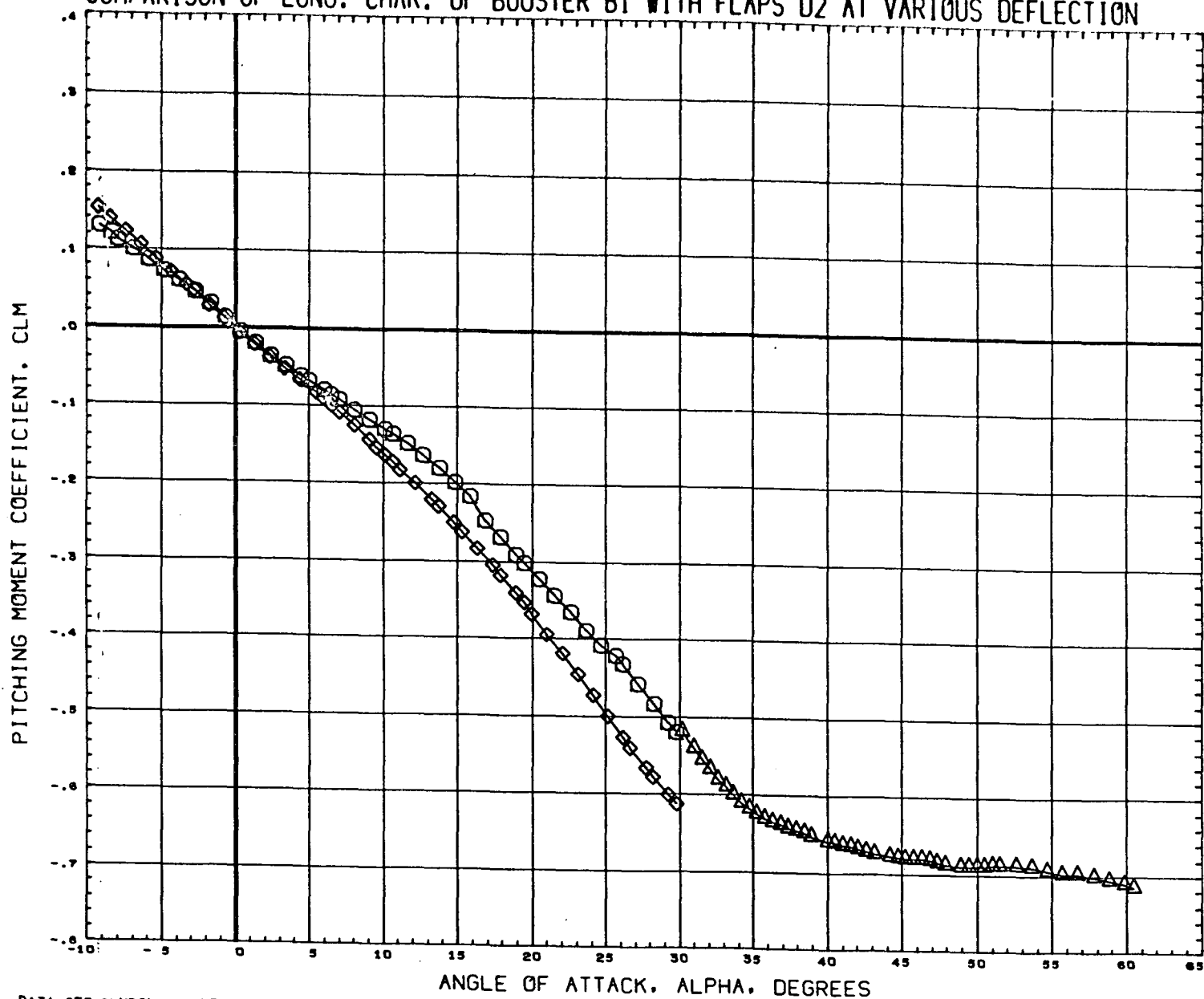
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 545

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



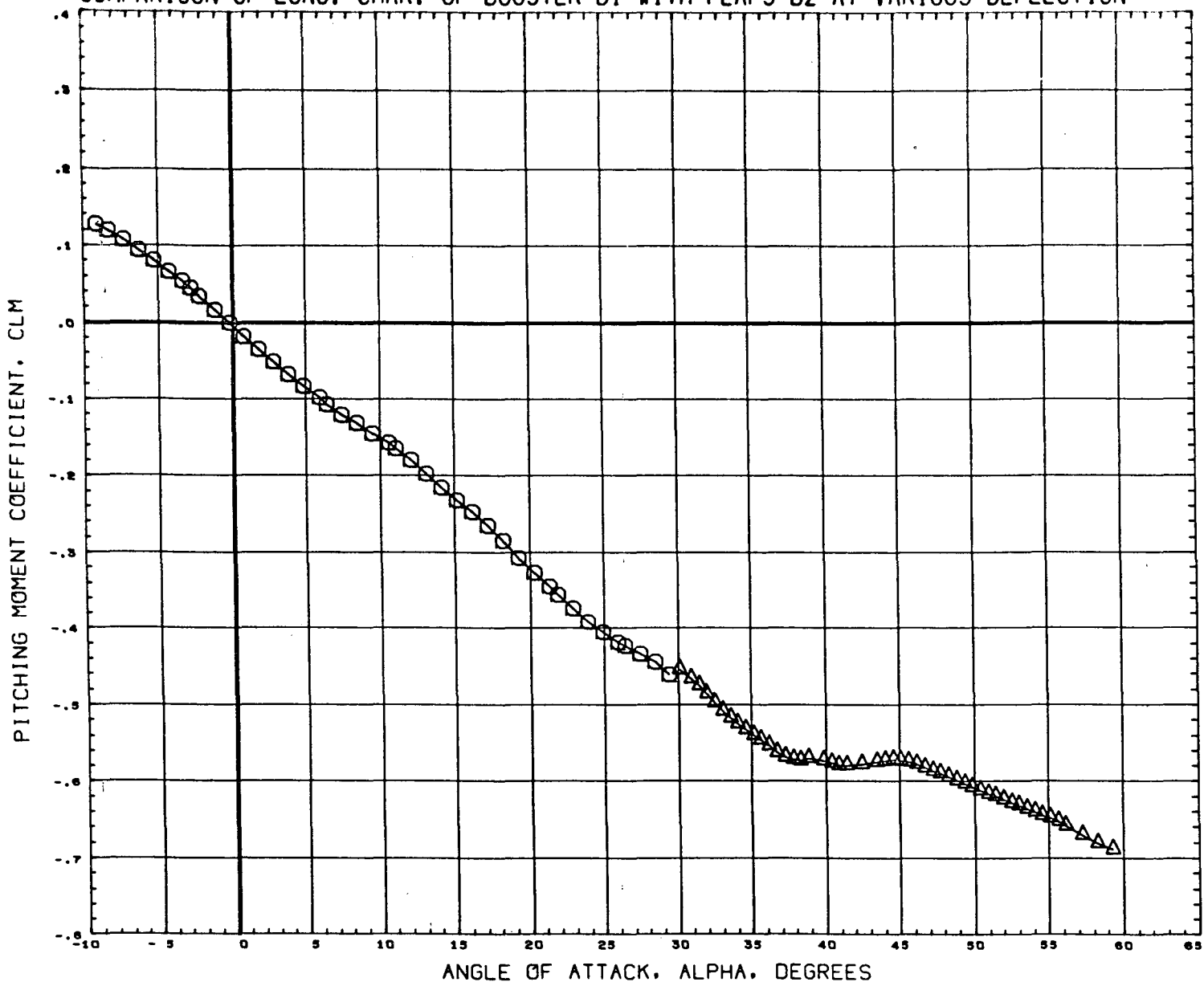
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

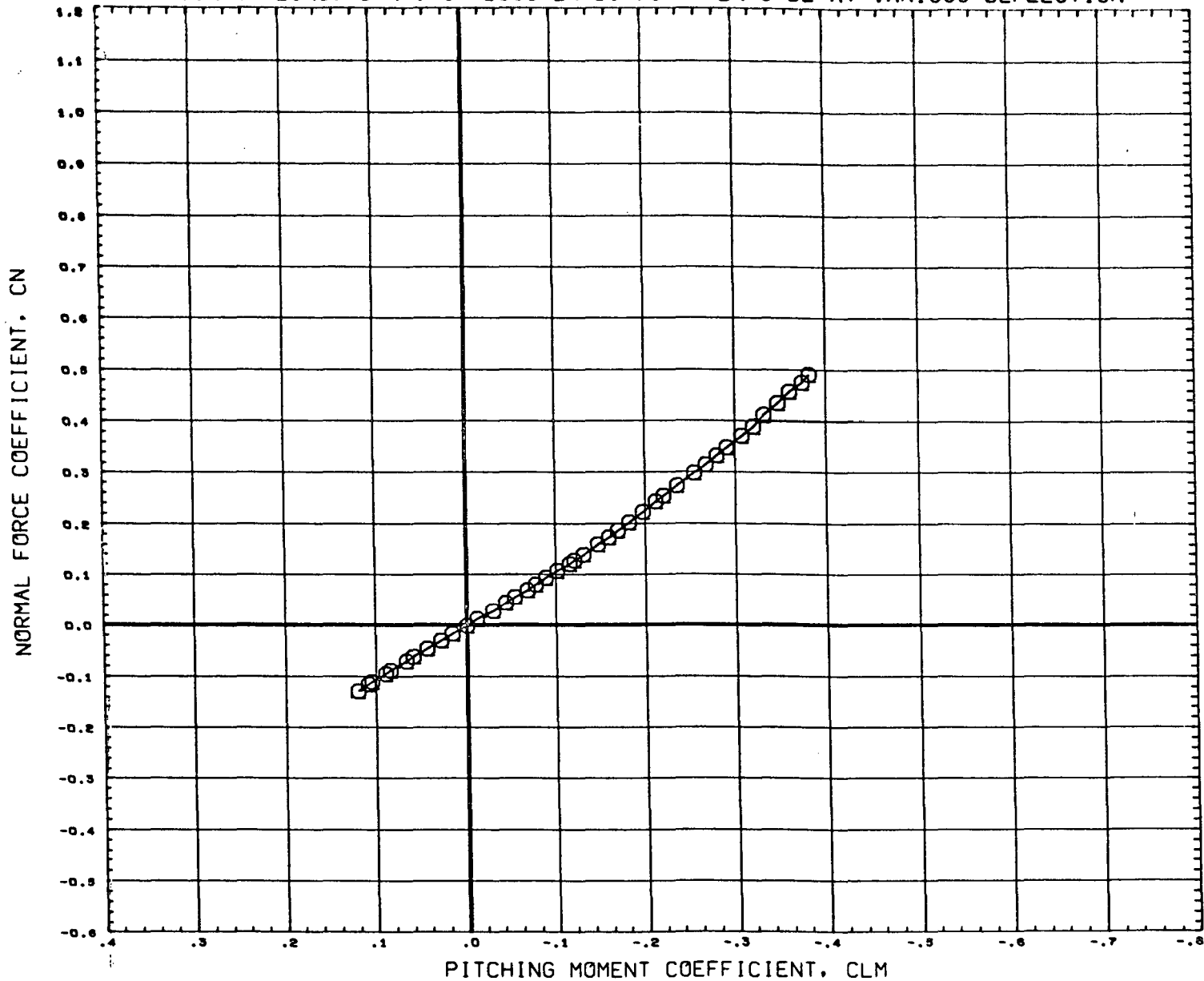
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

4.47

PAGE 547

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) DATA NOT AVAILABLE FOR ALL CONDITIONS

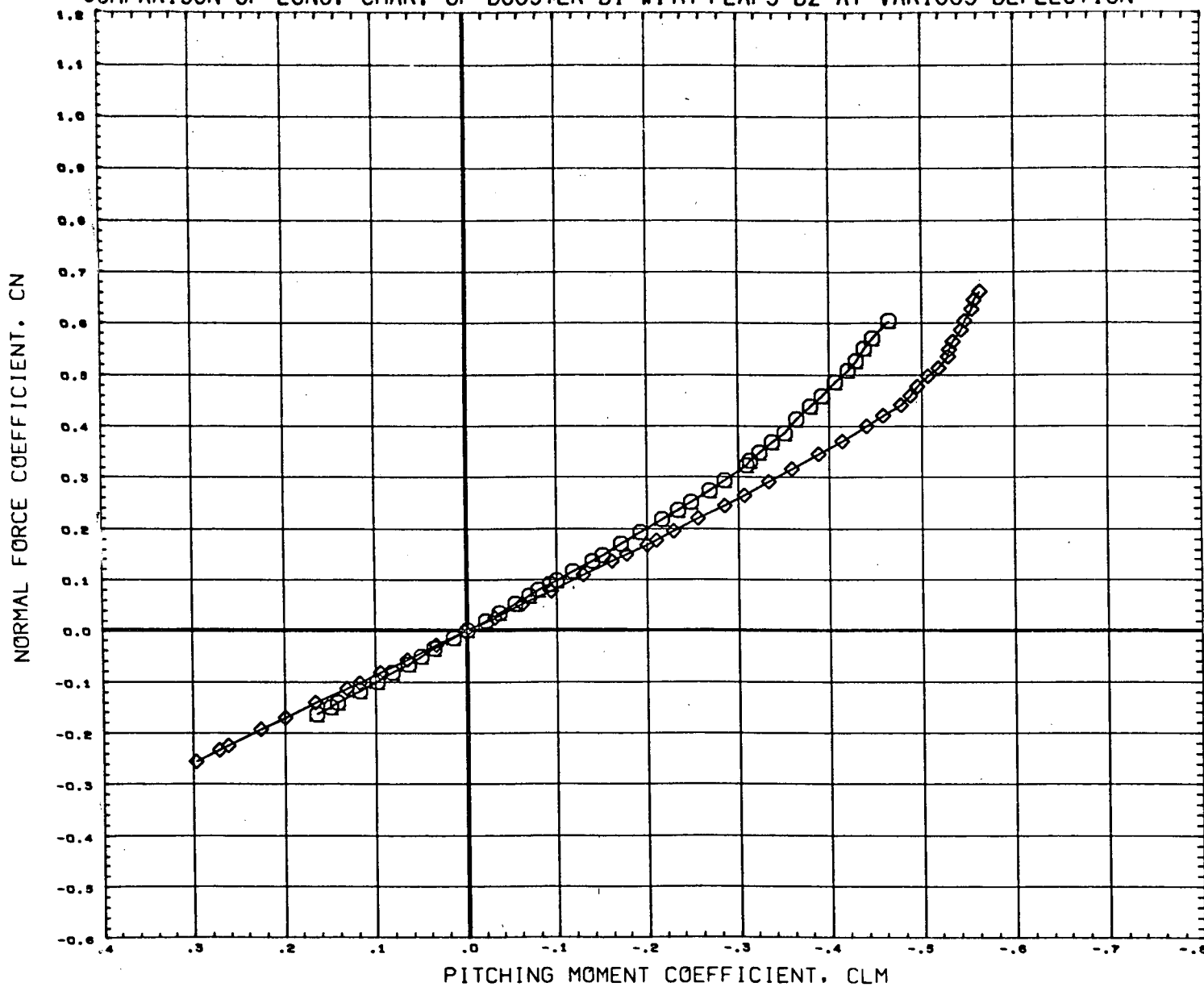
BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 45.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .65

PAGE 548

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

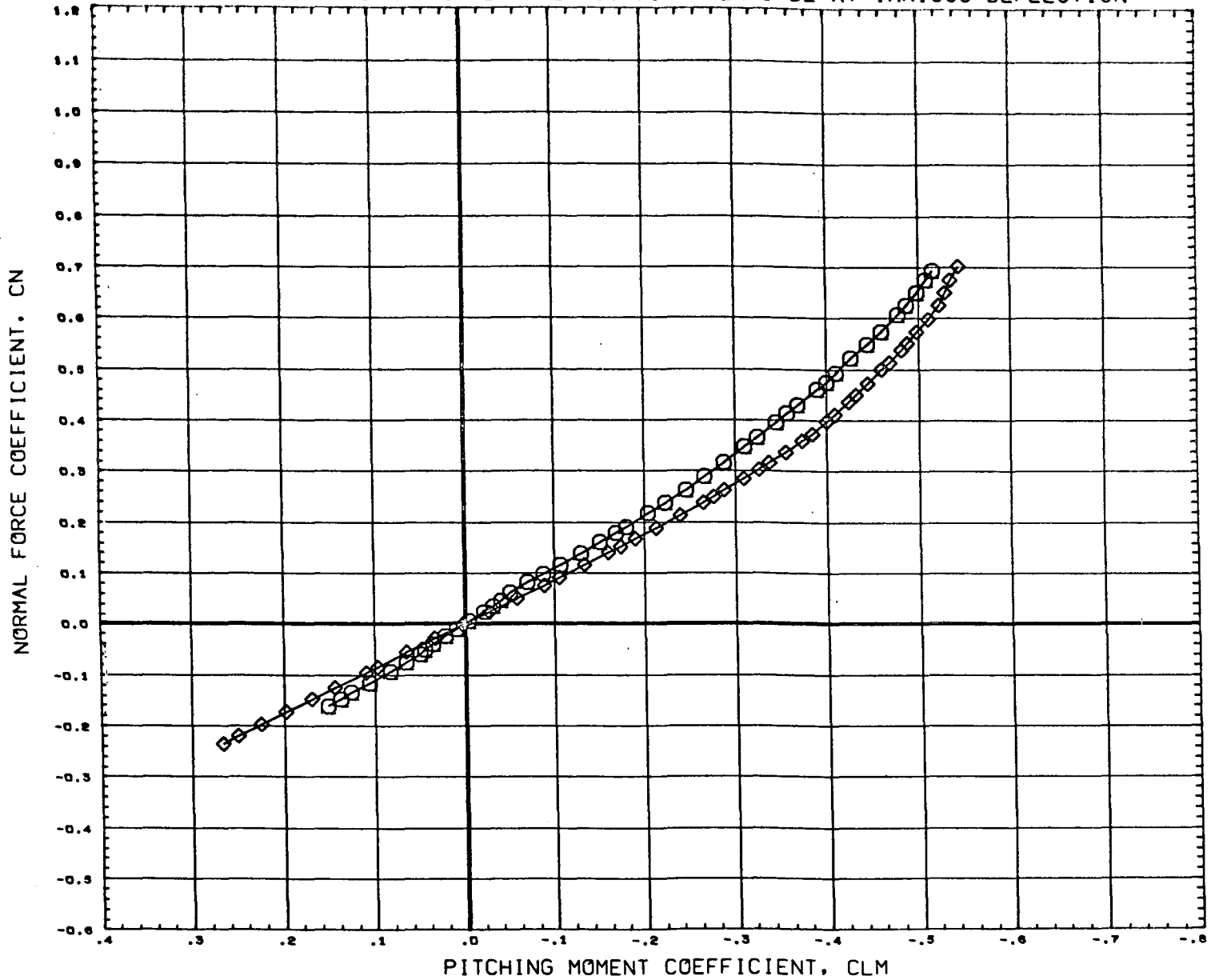
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0080	SCALE

MACH

.94

PAGE 549

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(C07809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(C07810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

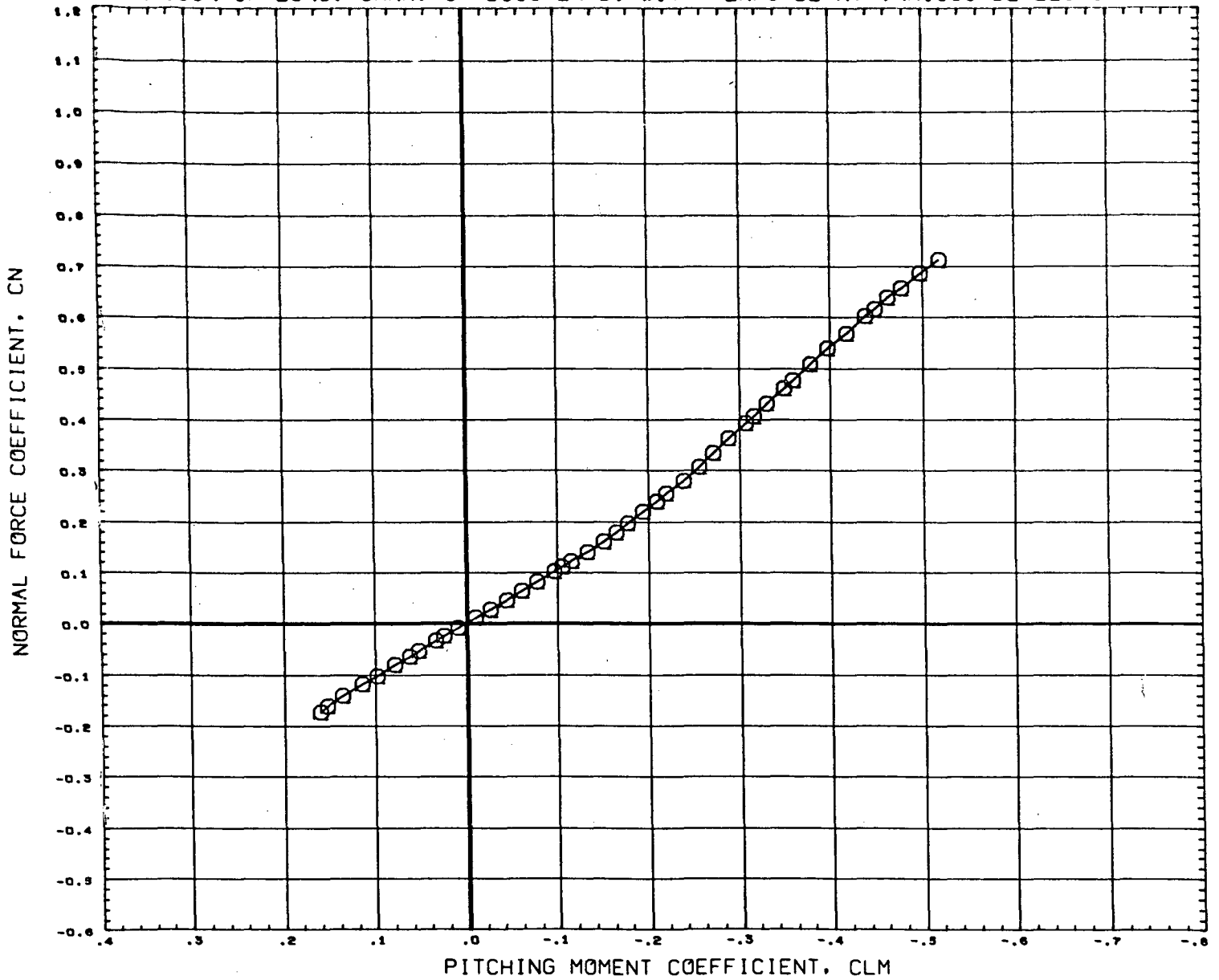
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 550

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

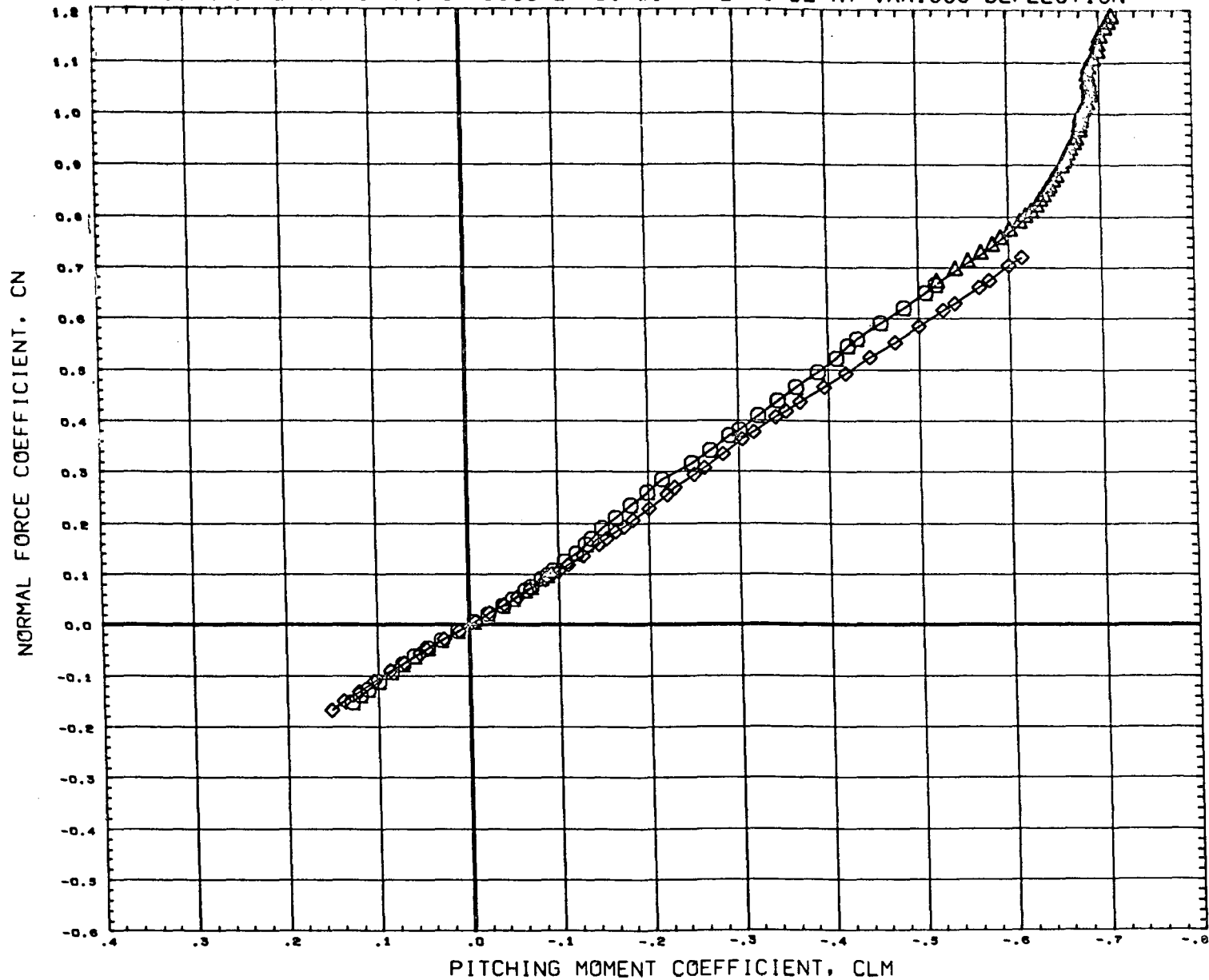


DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

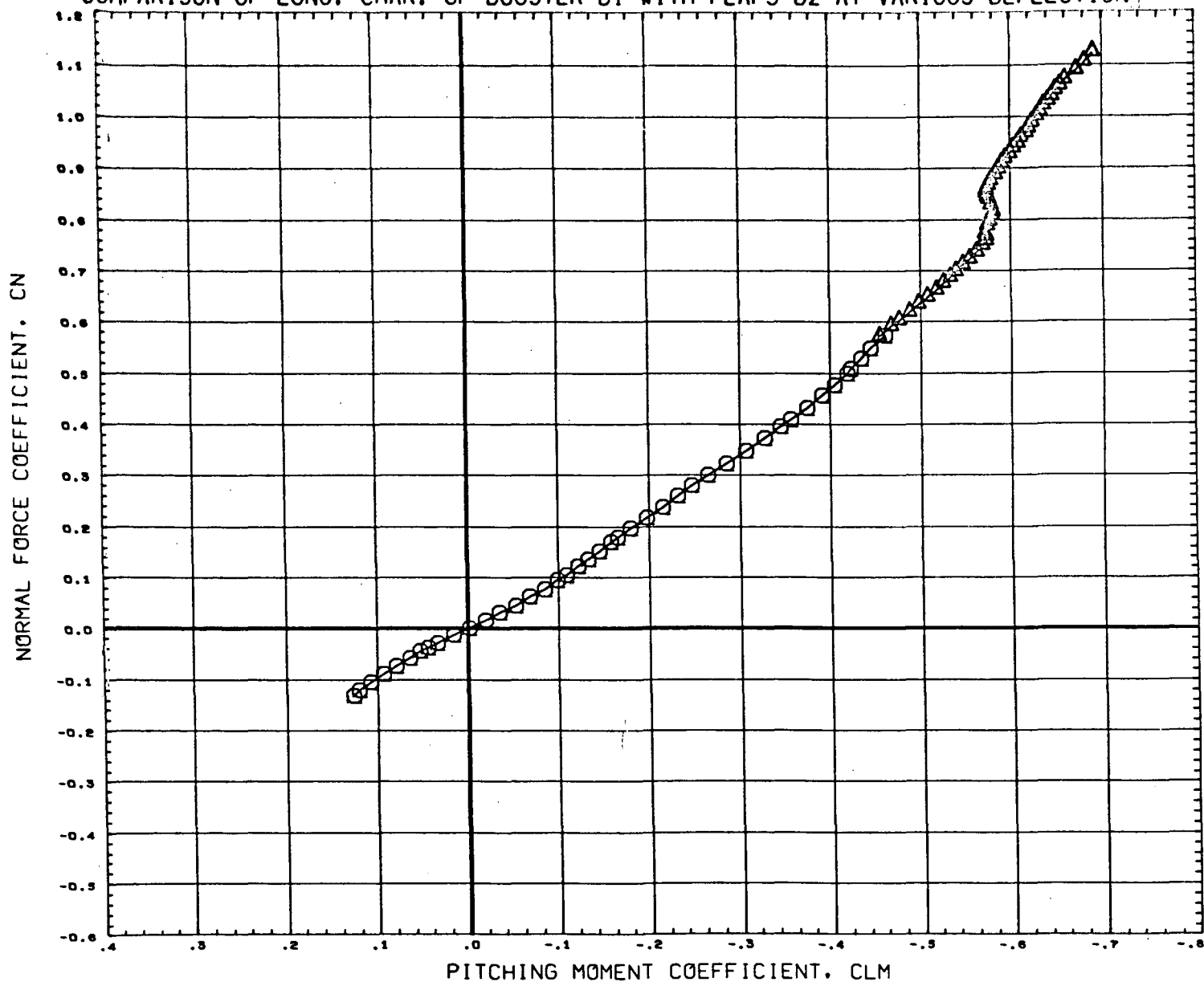
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 552

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

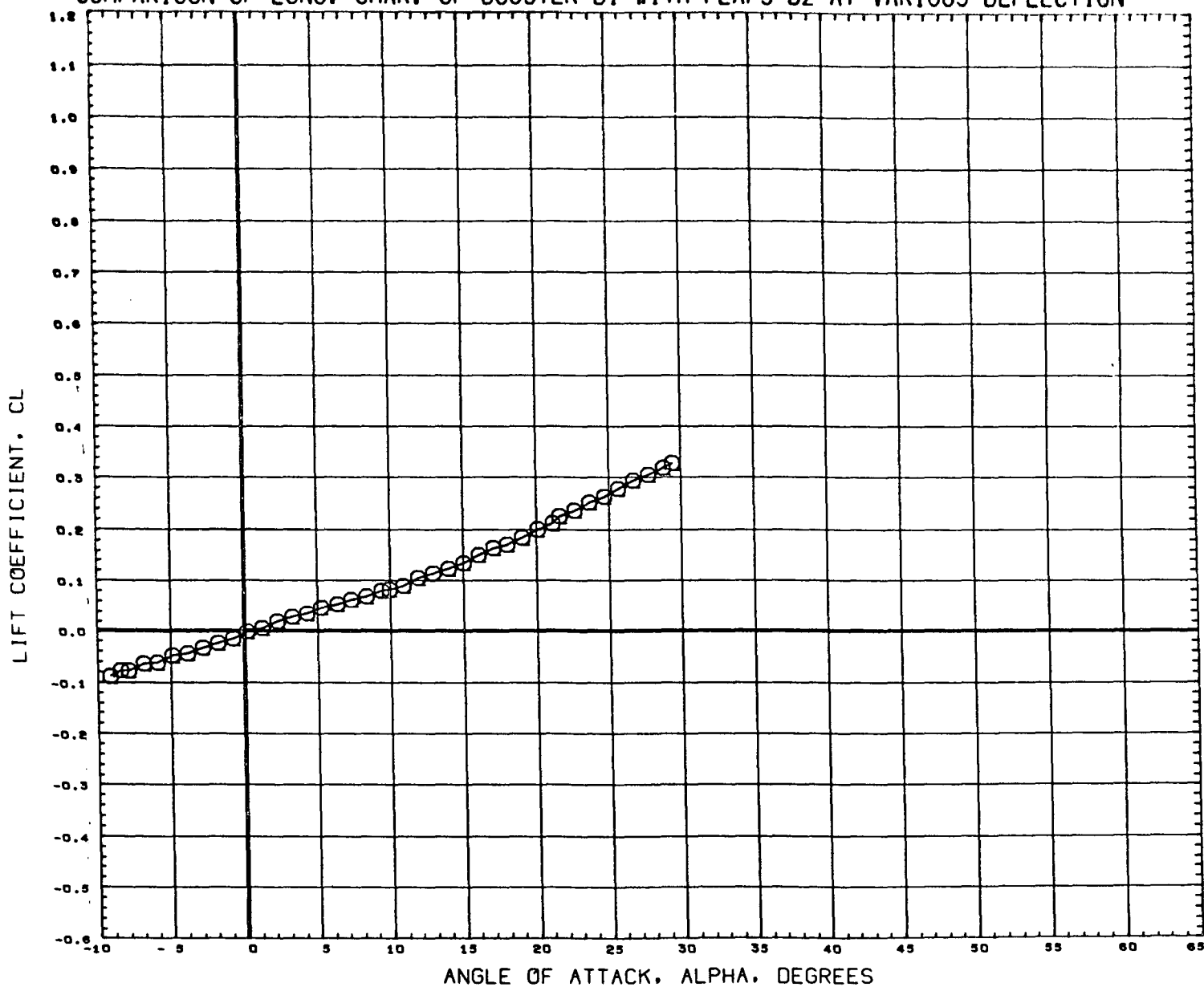
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0080 SCALE

MACH 4.47

PAGE 553

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) ◇ DATA NOT AVAILABLE FOR ALL CONDITIONS

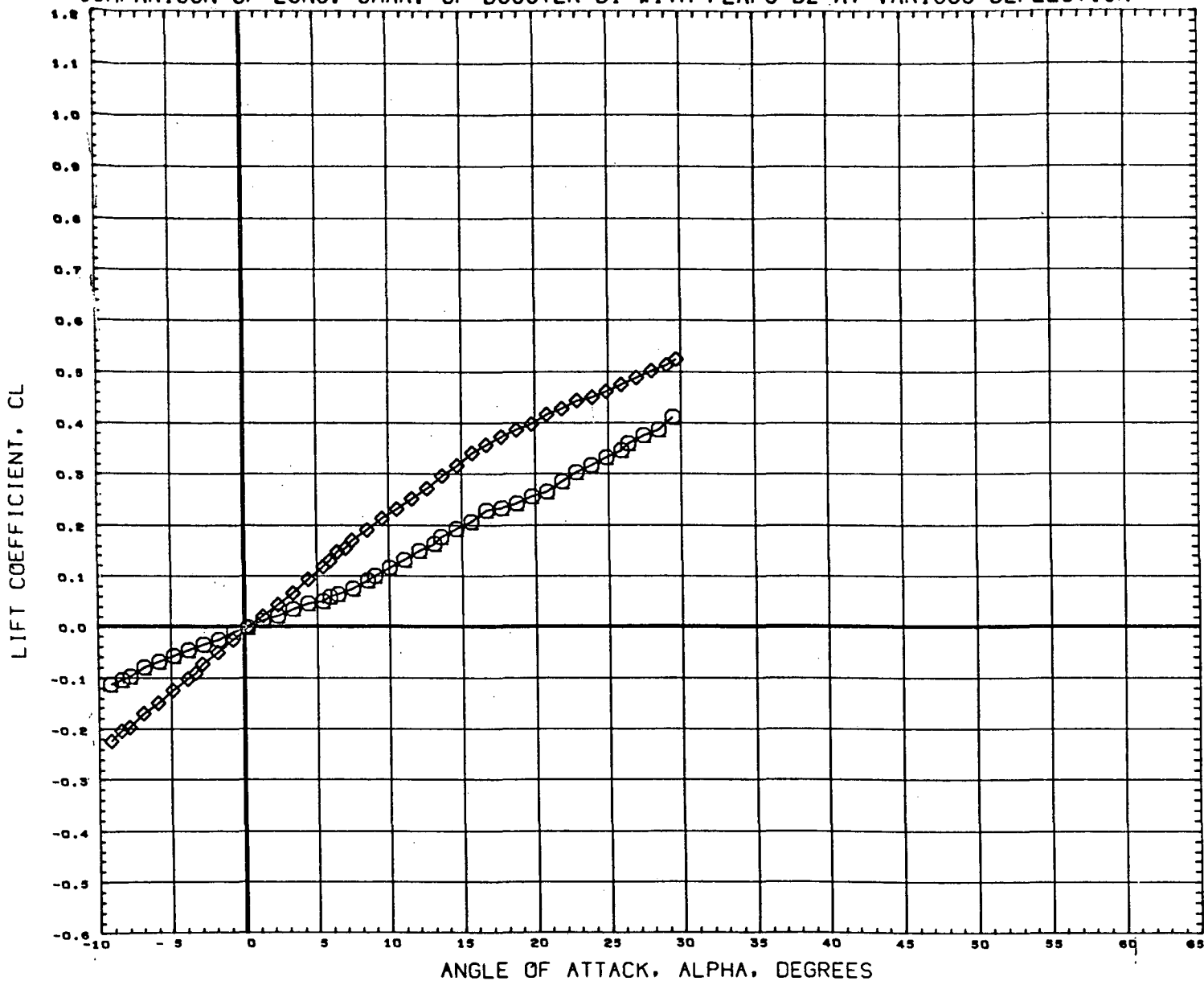
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.9004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 554

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

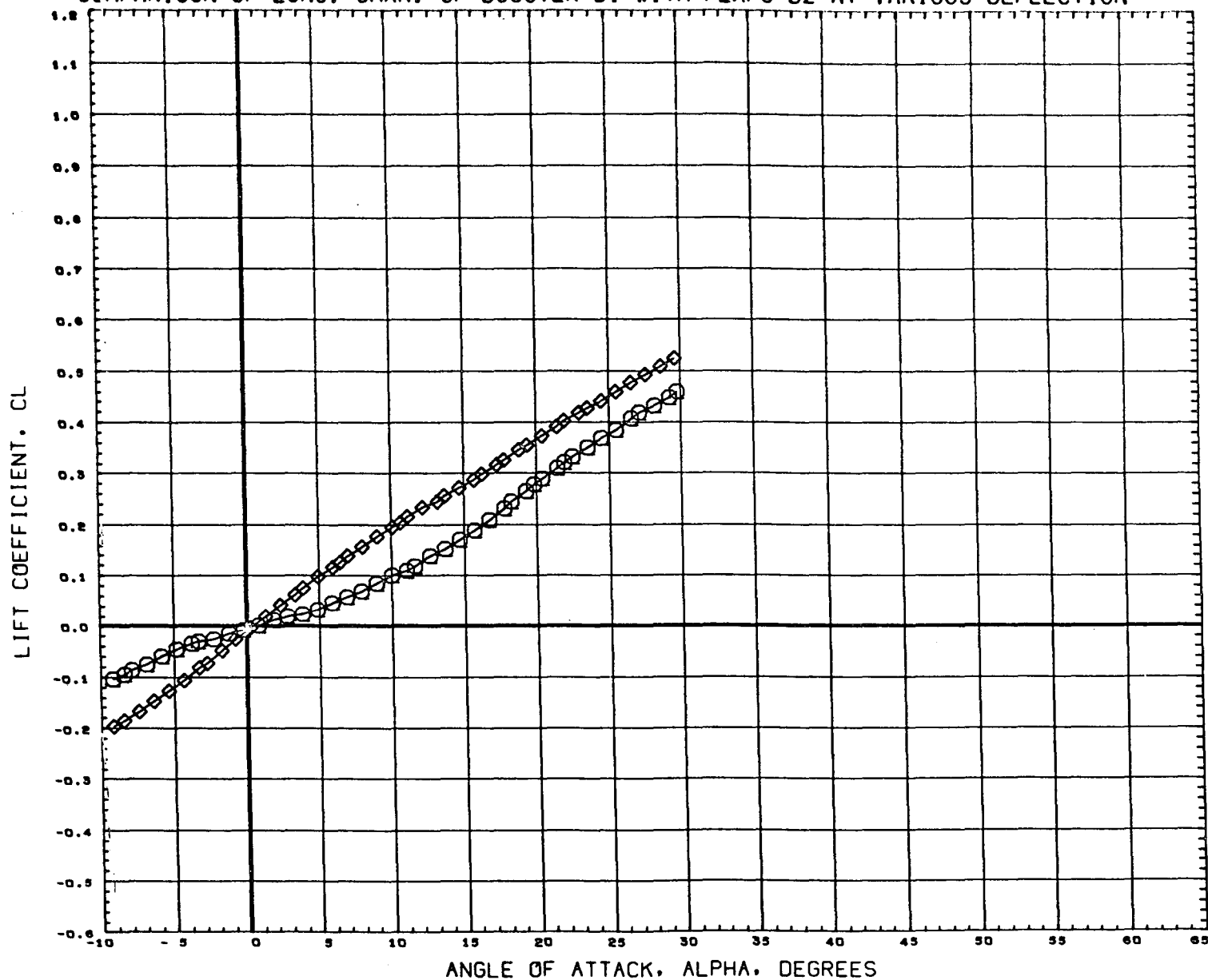
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 555

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

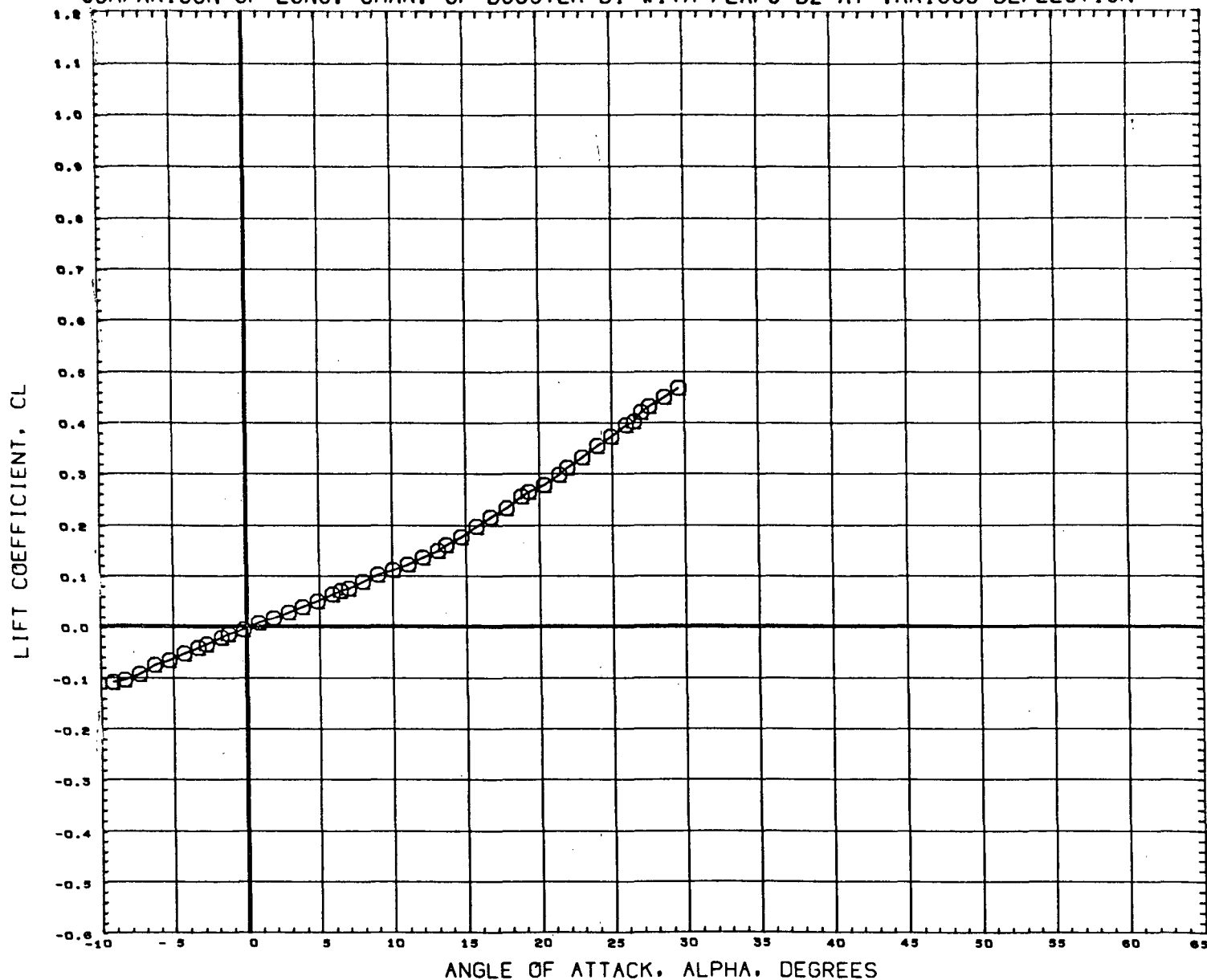
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 556

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

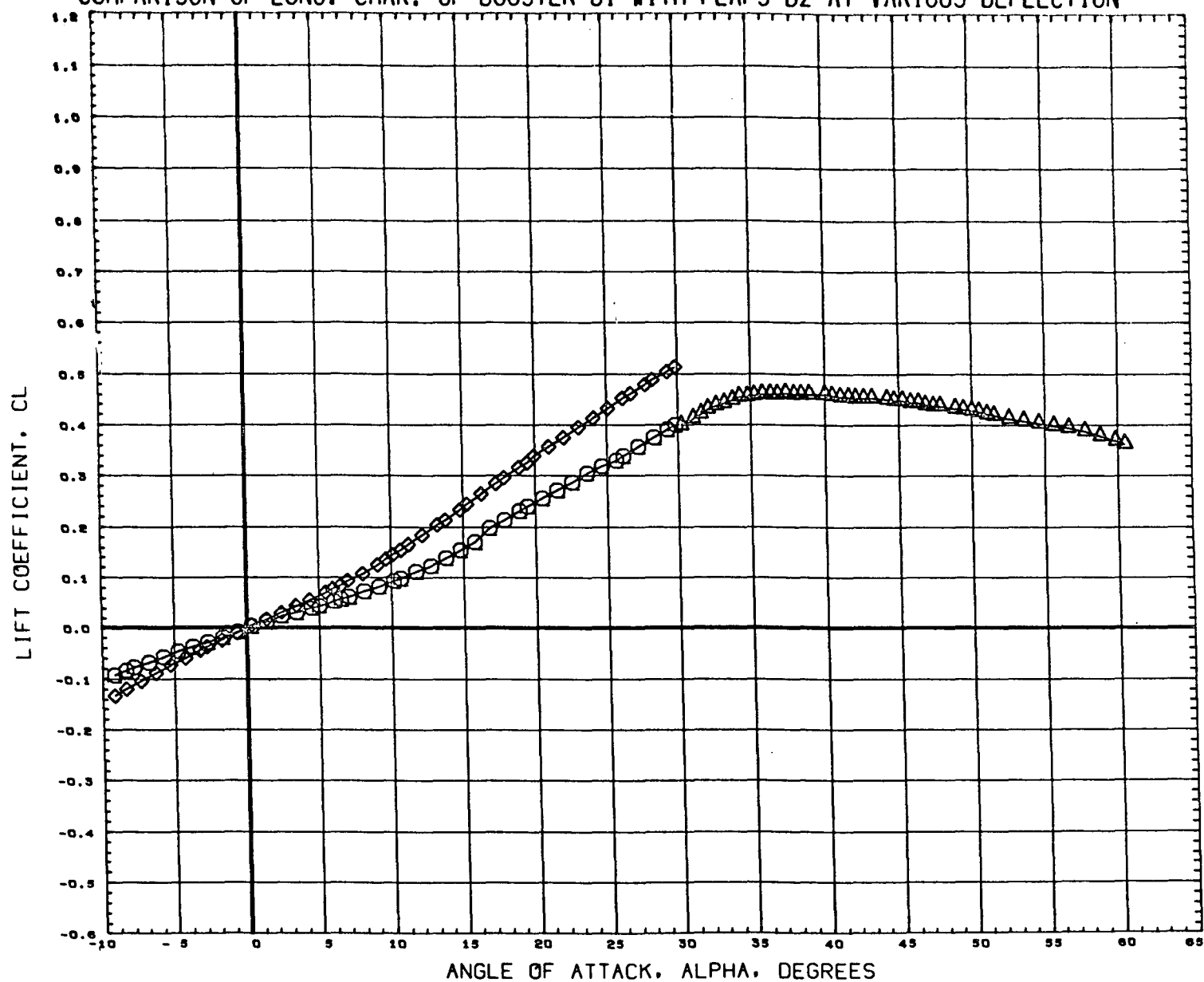
REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	862.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0060 SCALE

MACH

1.51

PAGE 557

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

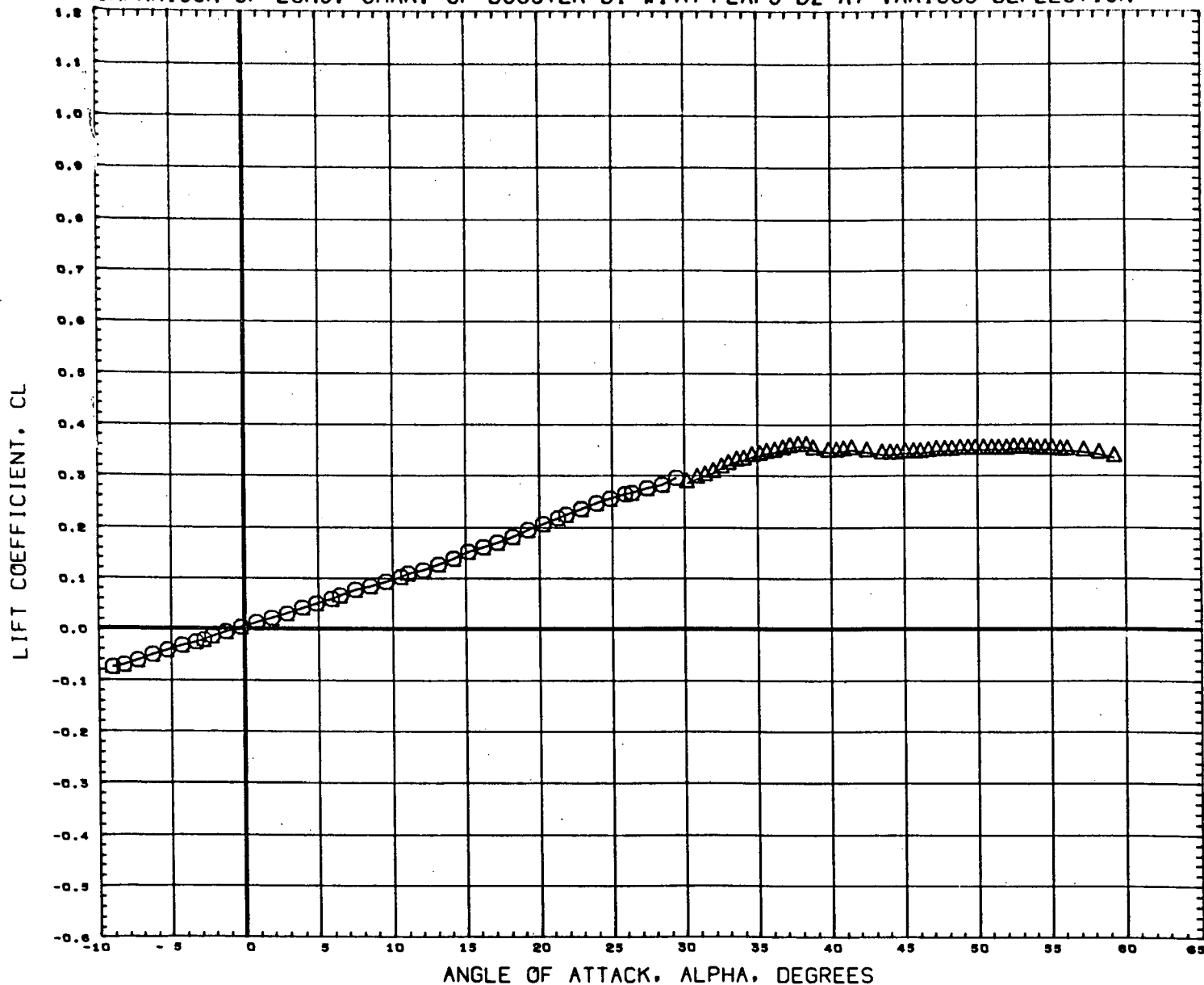
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 558

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

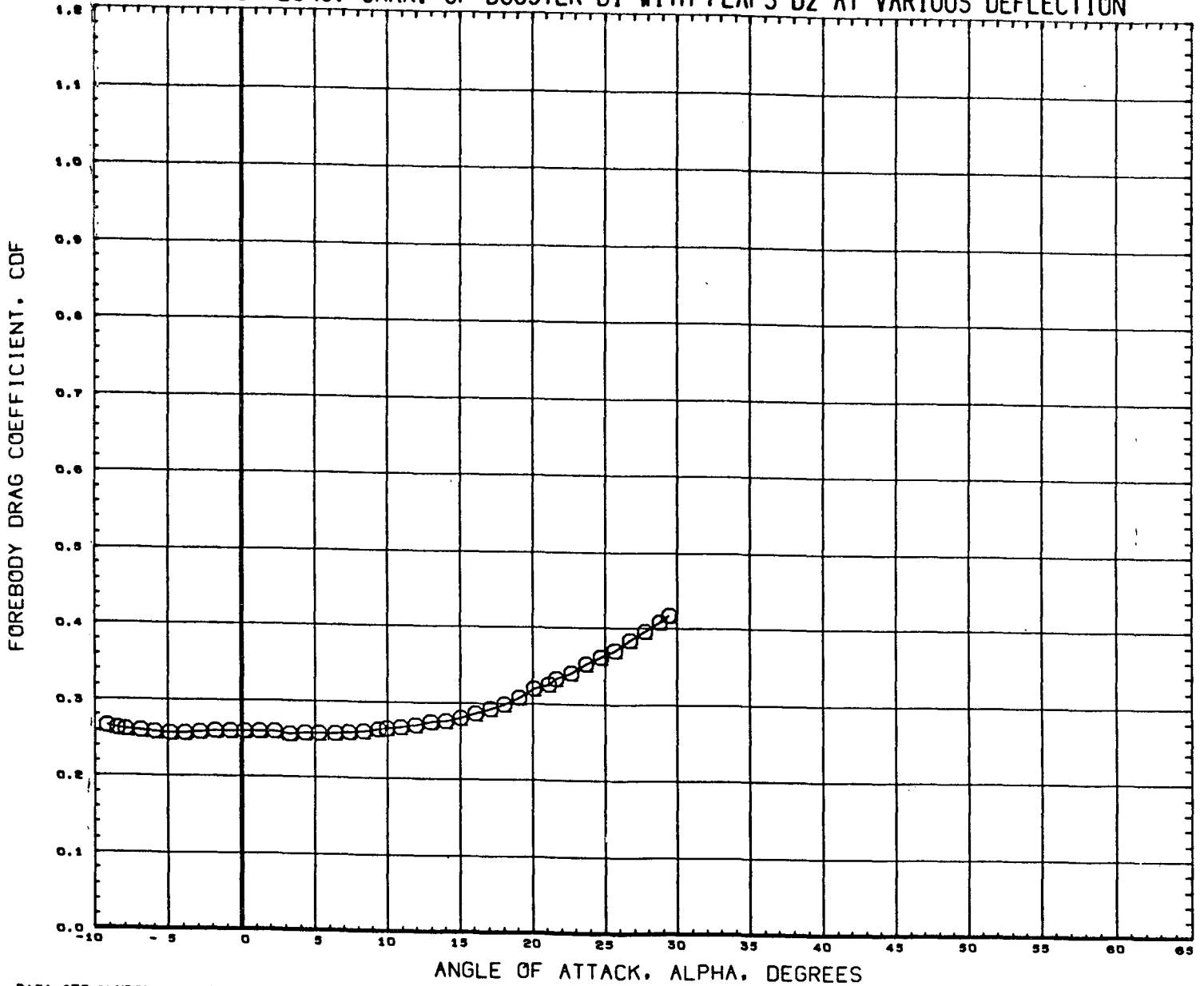
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 559

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



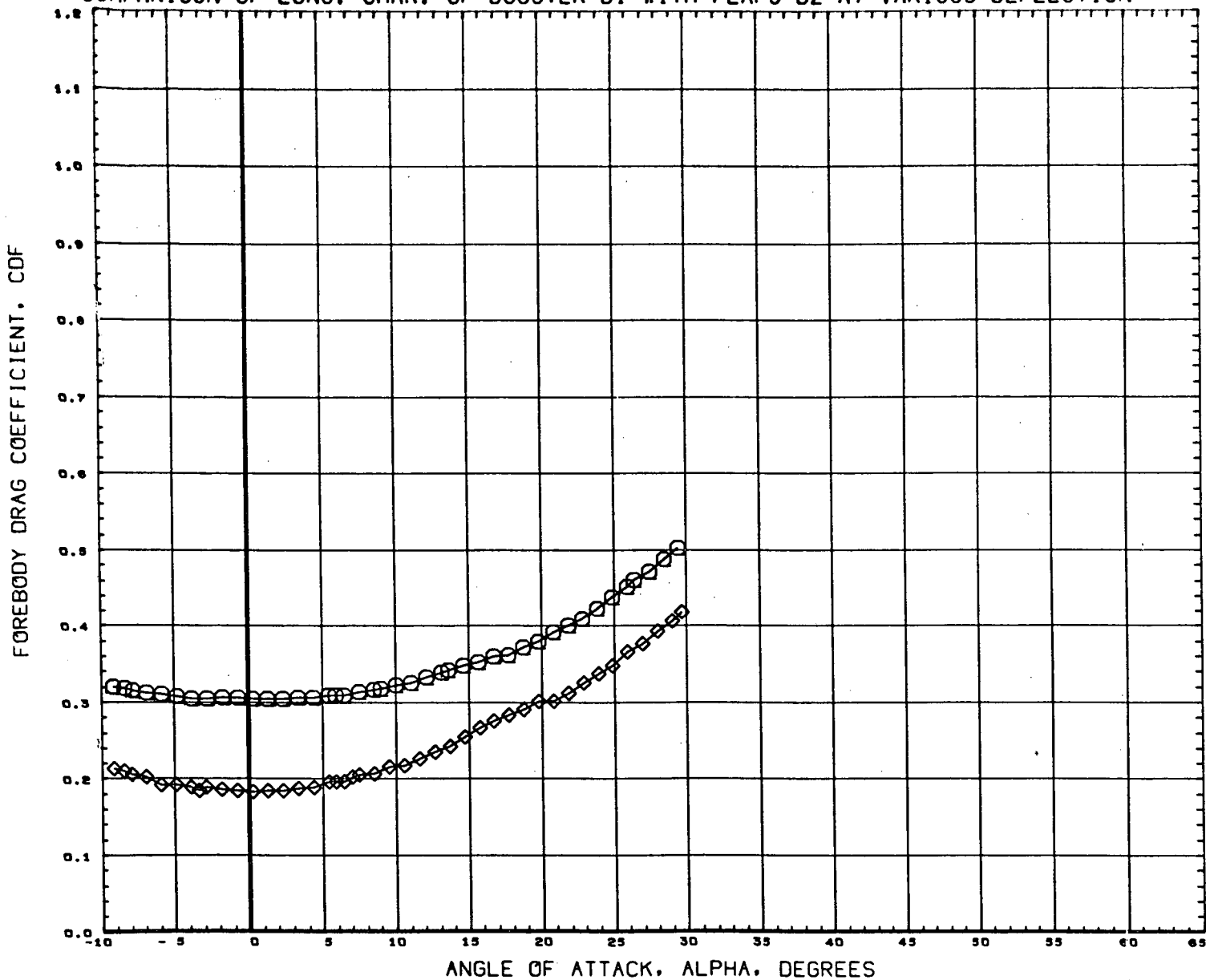
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

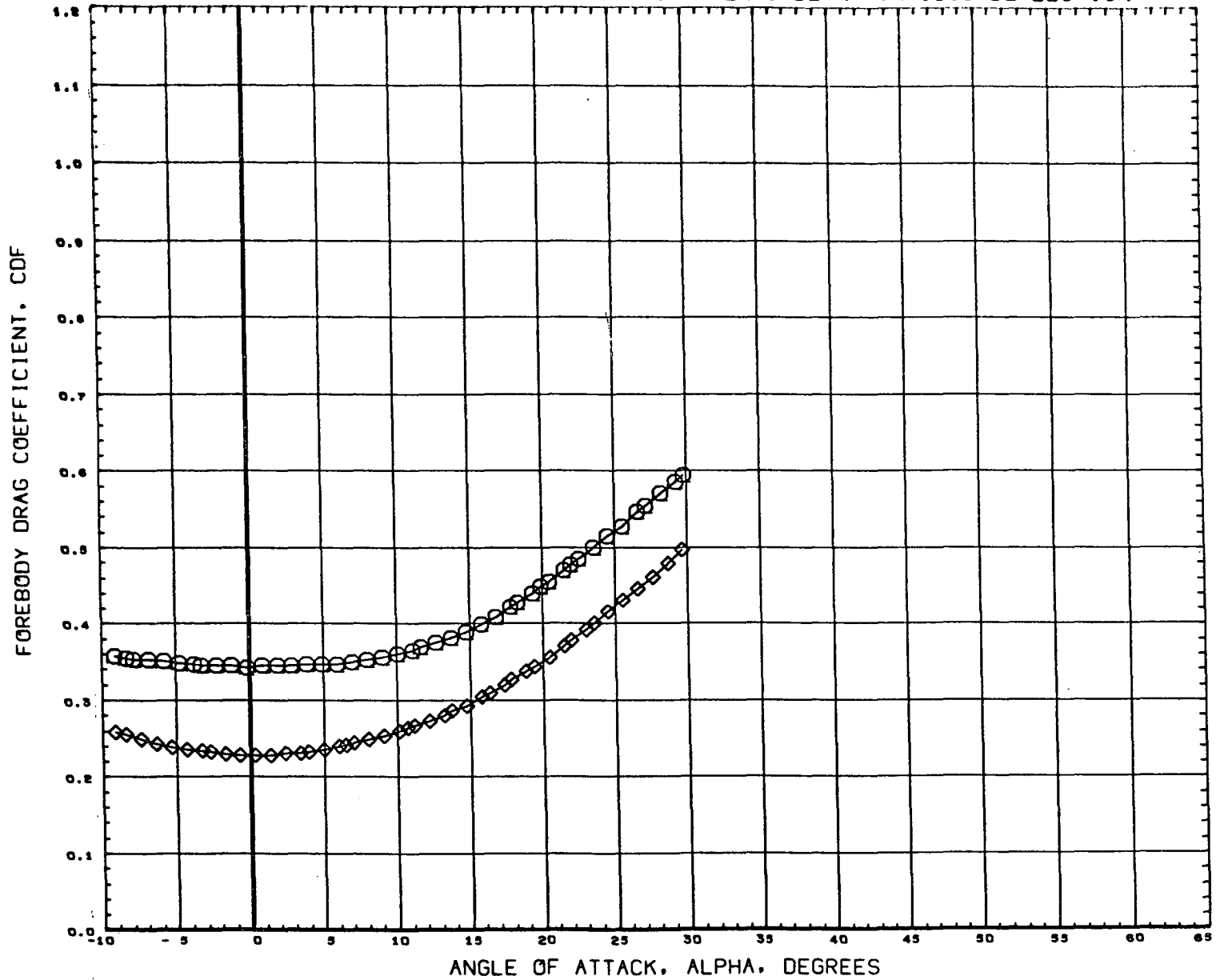
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 561

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

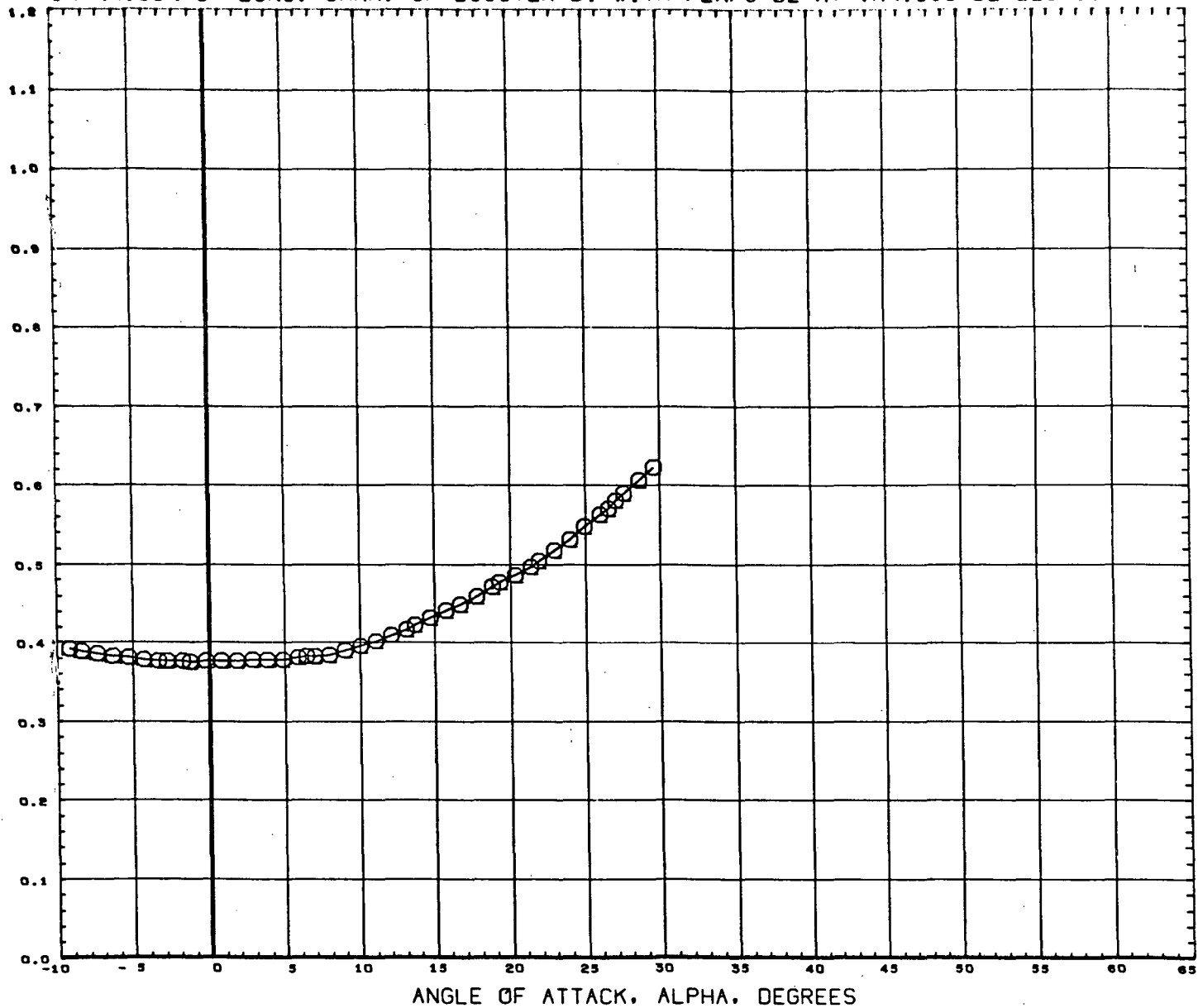
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 562

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

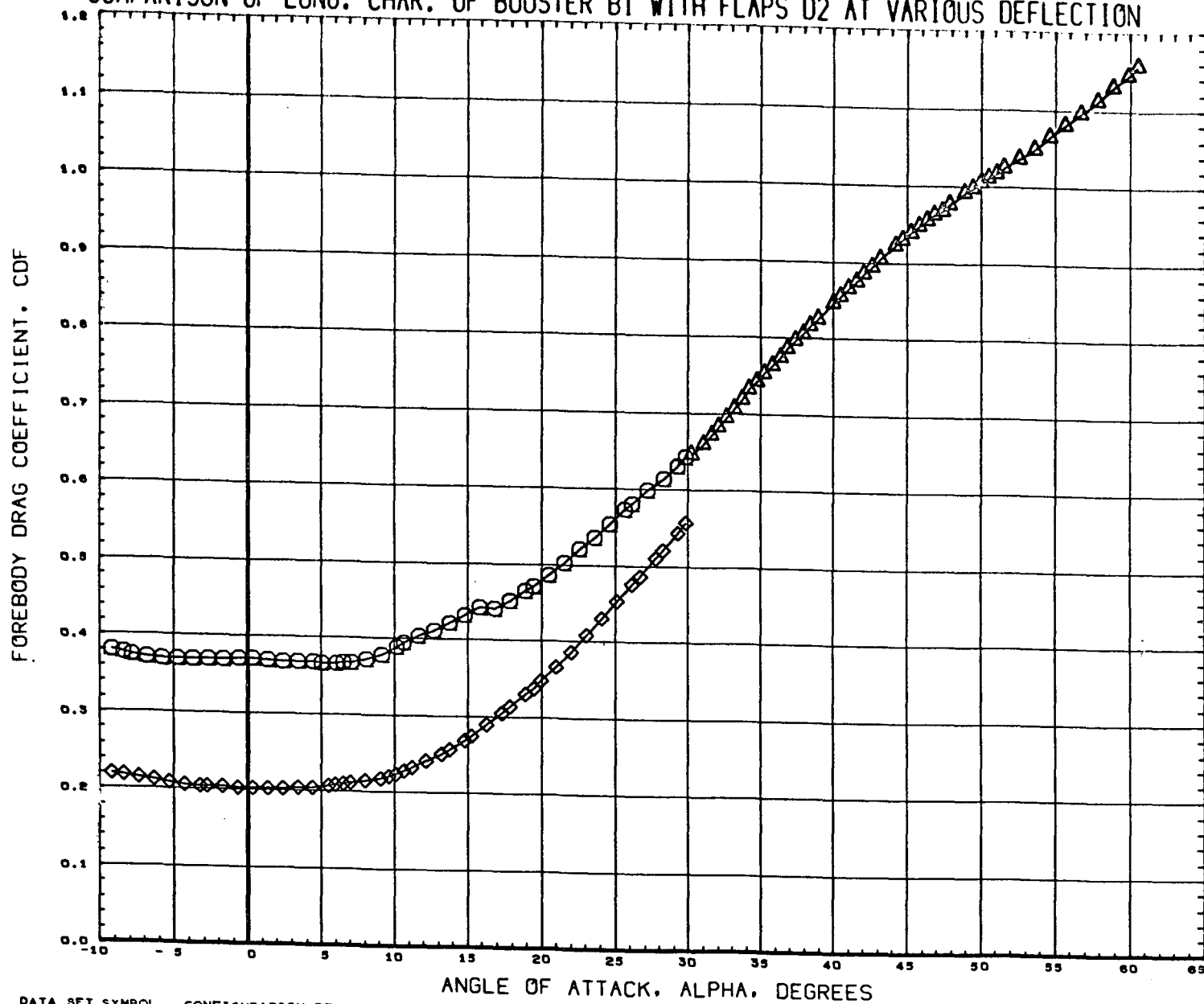
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.51

PAGE 563

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

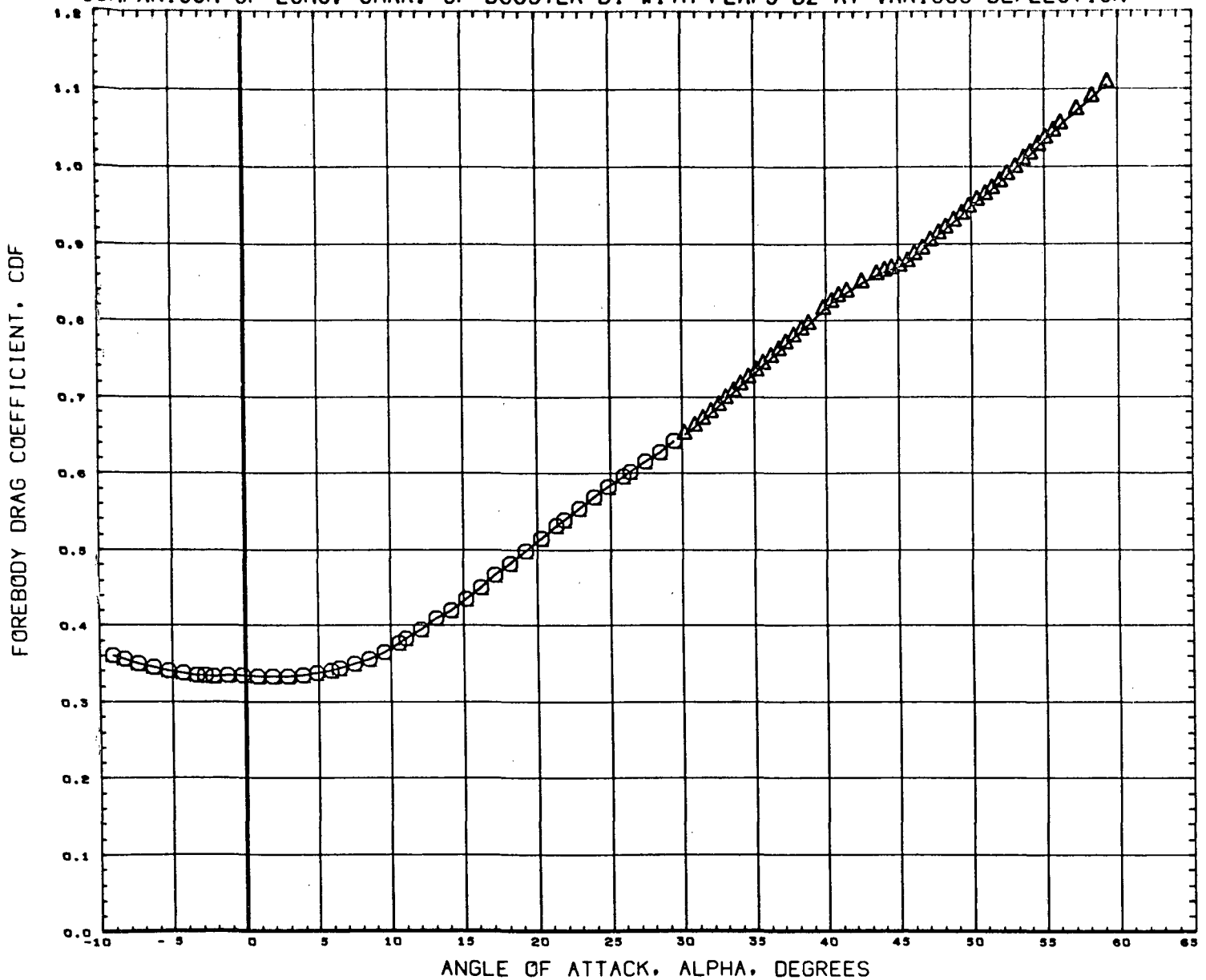
BETA	FLAPS
0.000	75.000
0.000	45.000
0.000	0.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 564

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

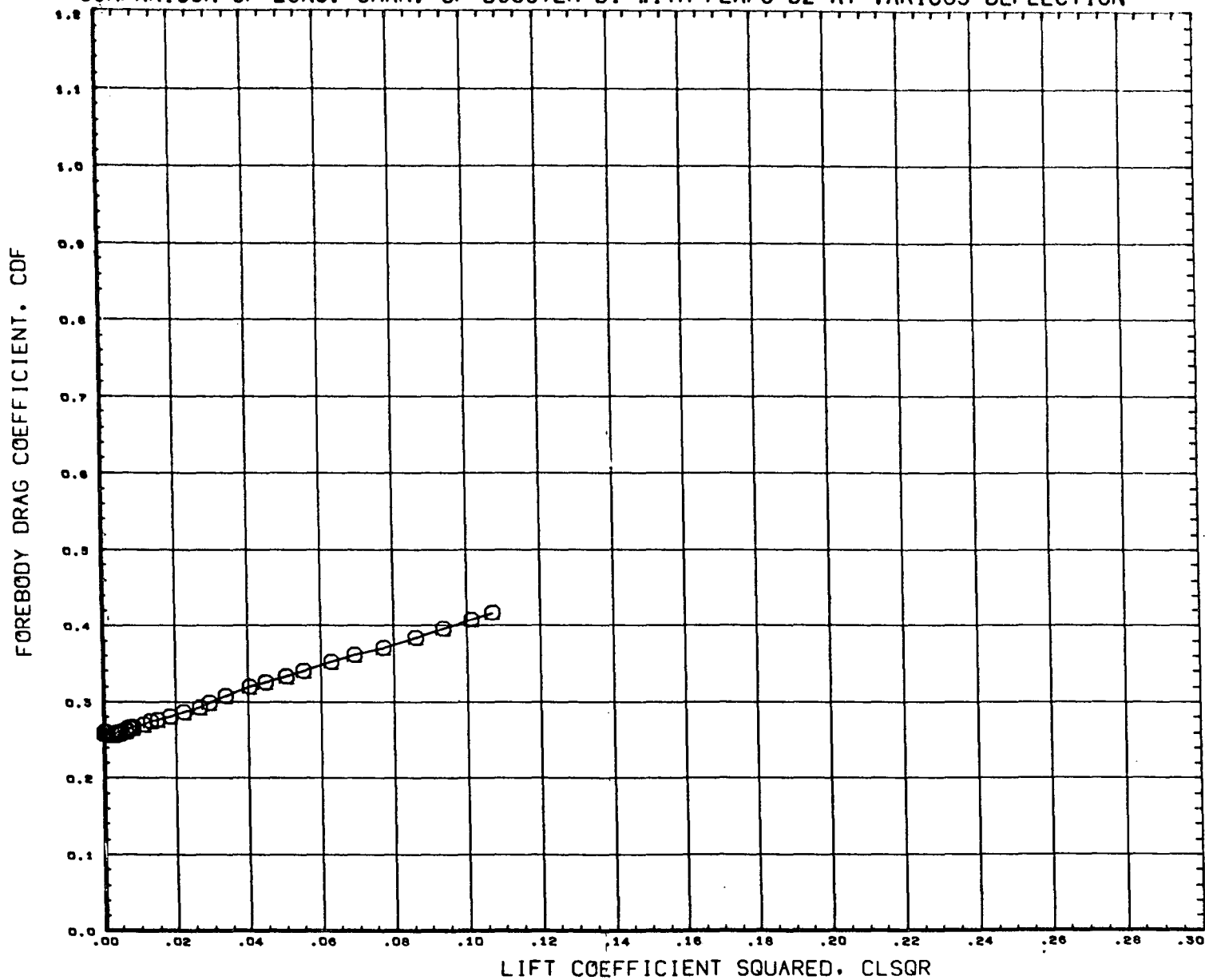
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 565

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL CONFIGURATION DESCRIPTION
 (CD7808) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
 (CD7809) △ DATA NOT AVAILABLE FOR ALL CONDITIONS
 (CD7810) ◇ DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 45.000

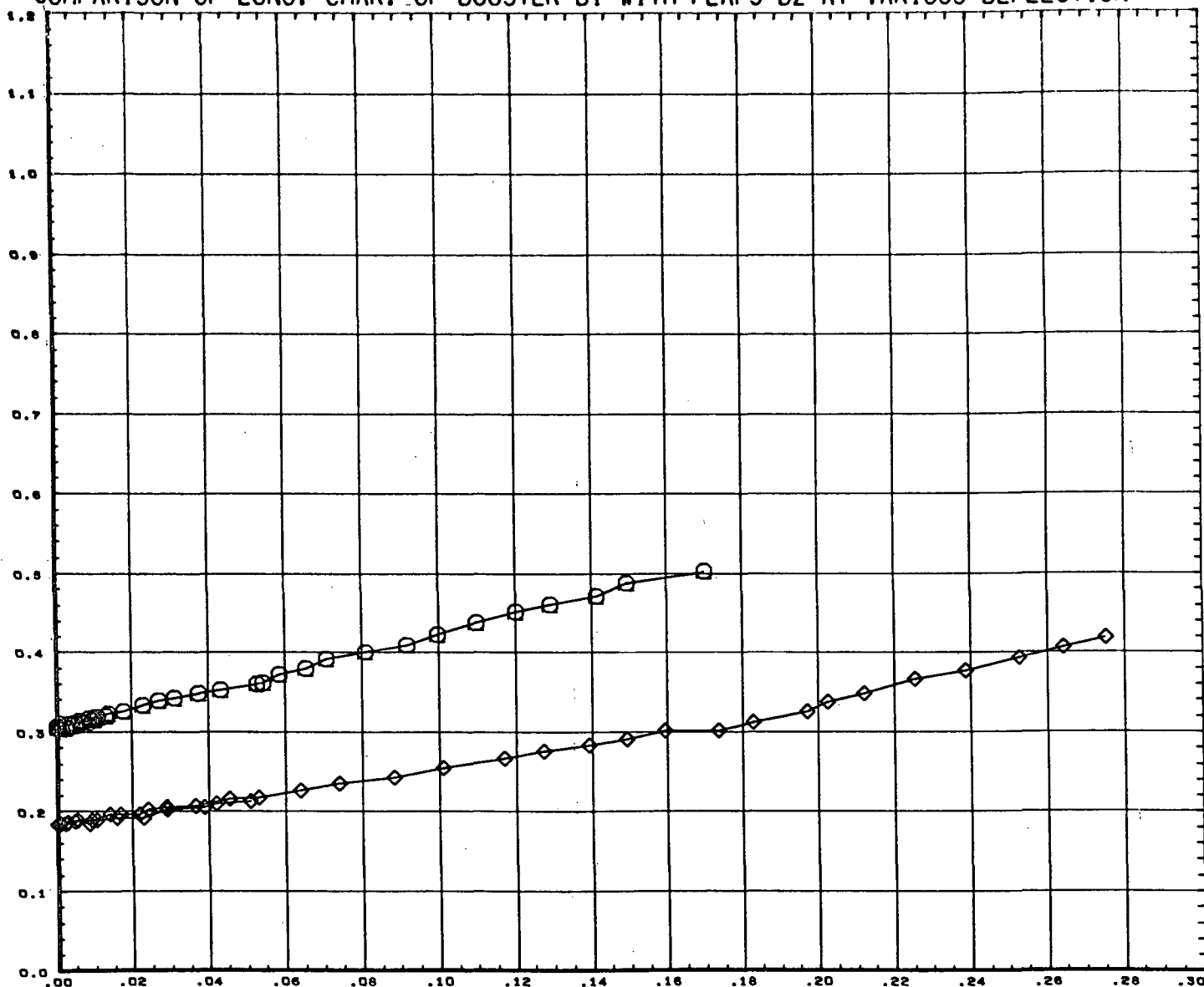
REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 882.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH .65

PAGE 566

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

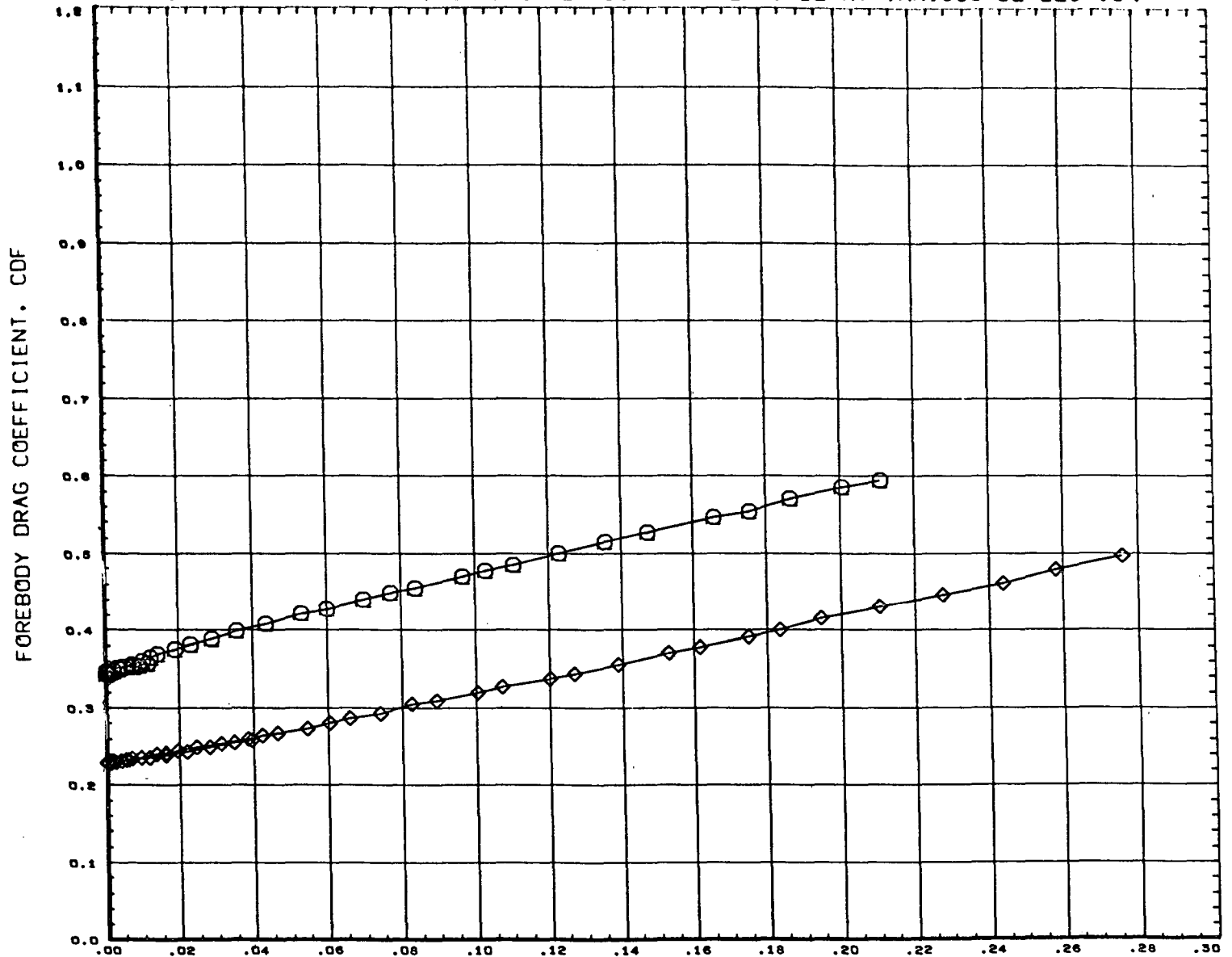
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

.94

PAGE 567

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



LIFT COEFFICIENT SQUARED, CLSQR

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) □	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

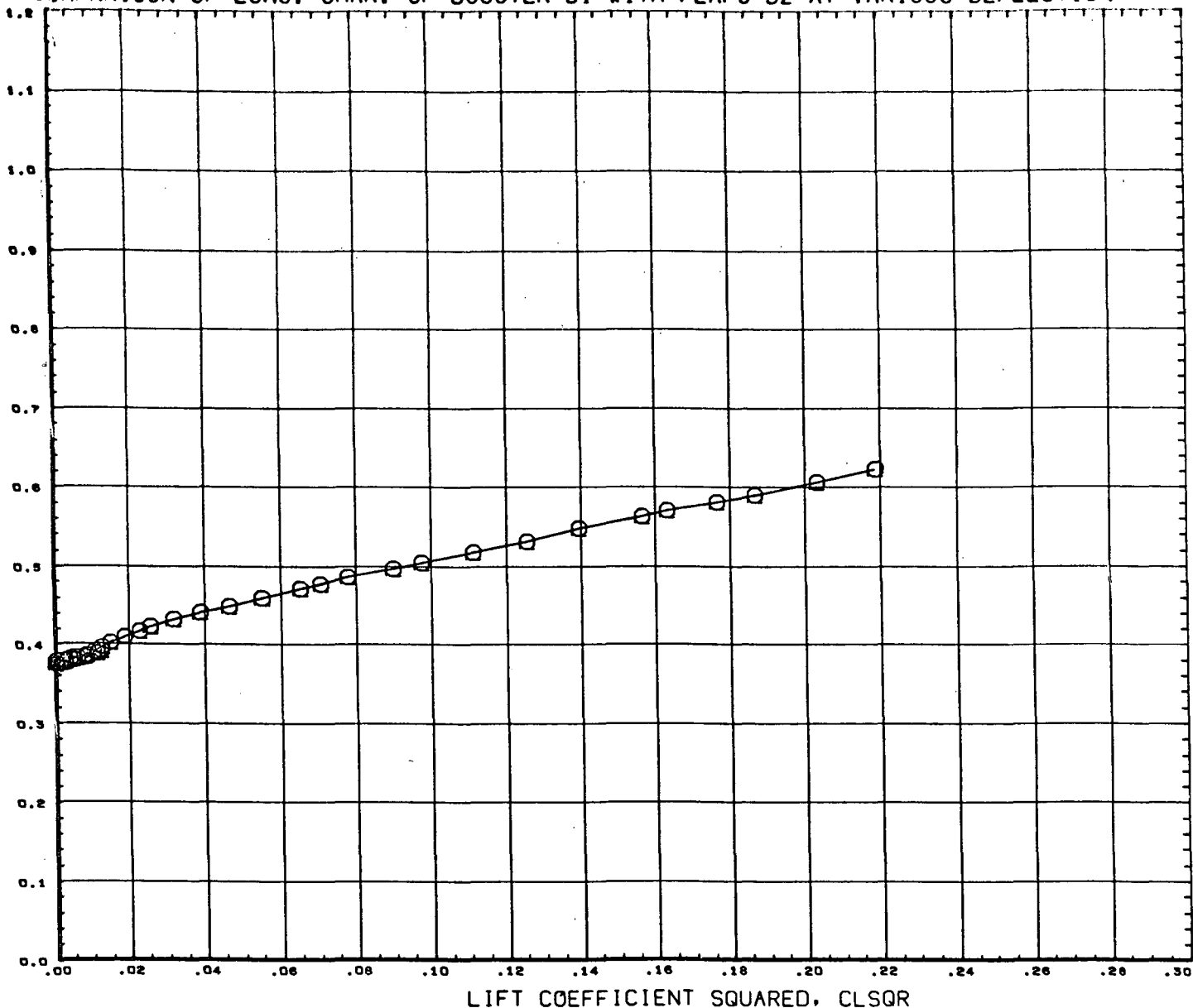
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 568

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

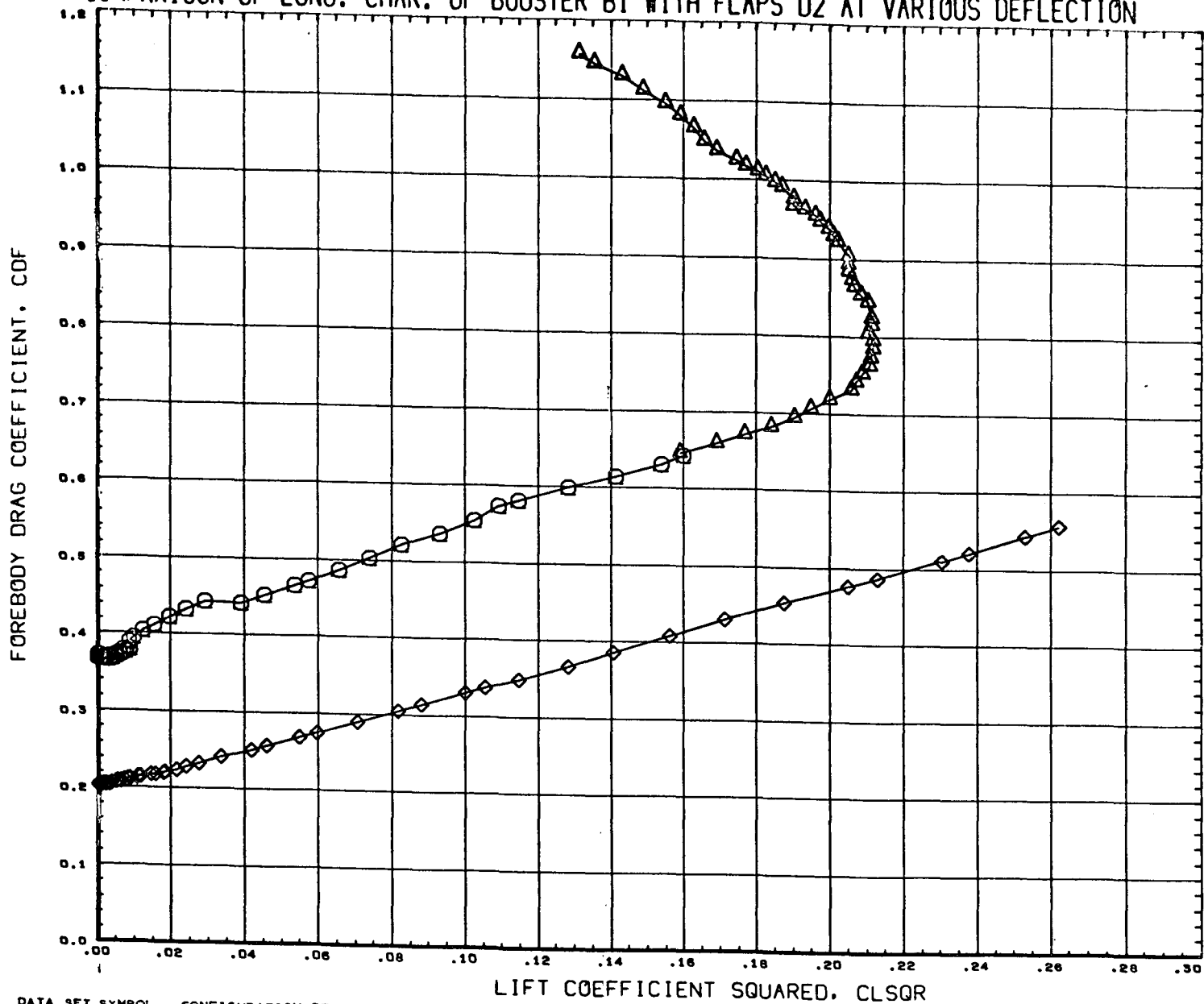
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.51

PAGE 569

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

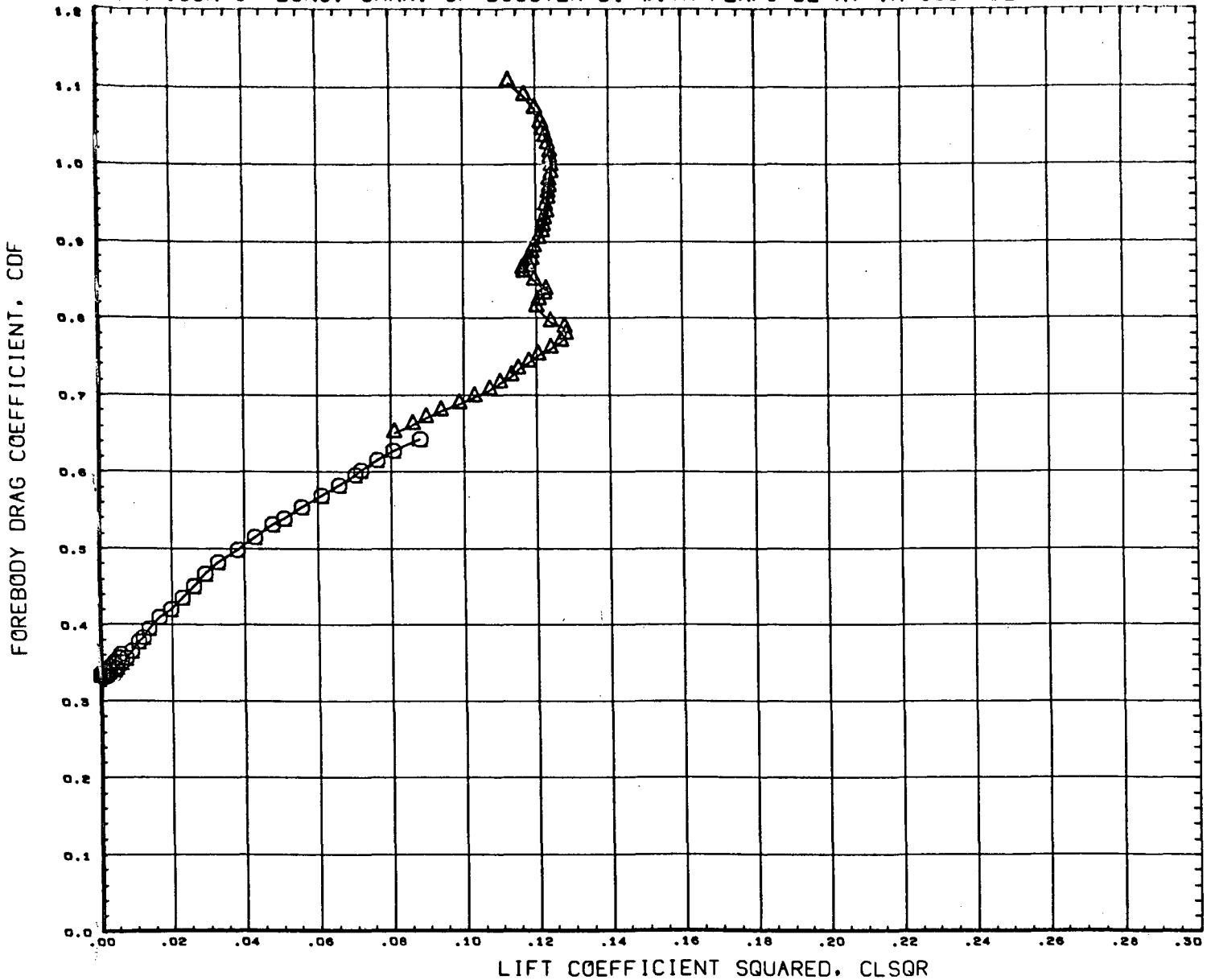
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 570

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

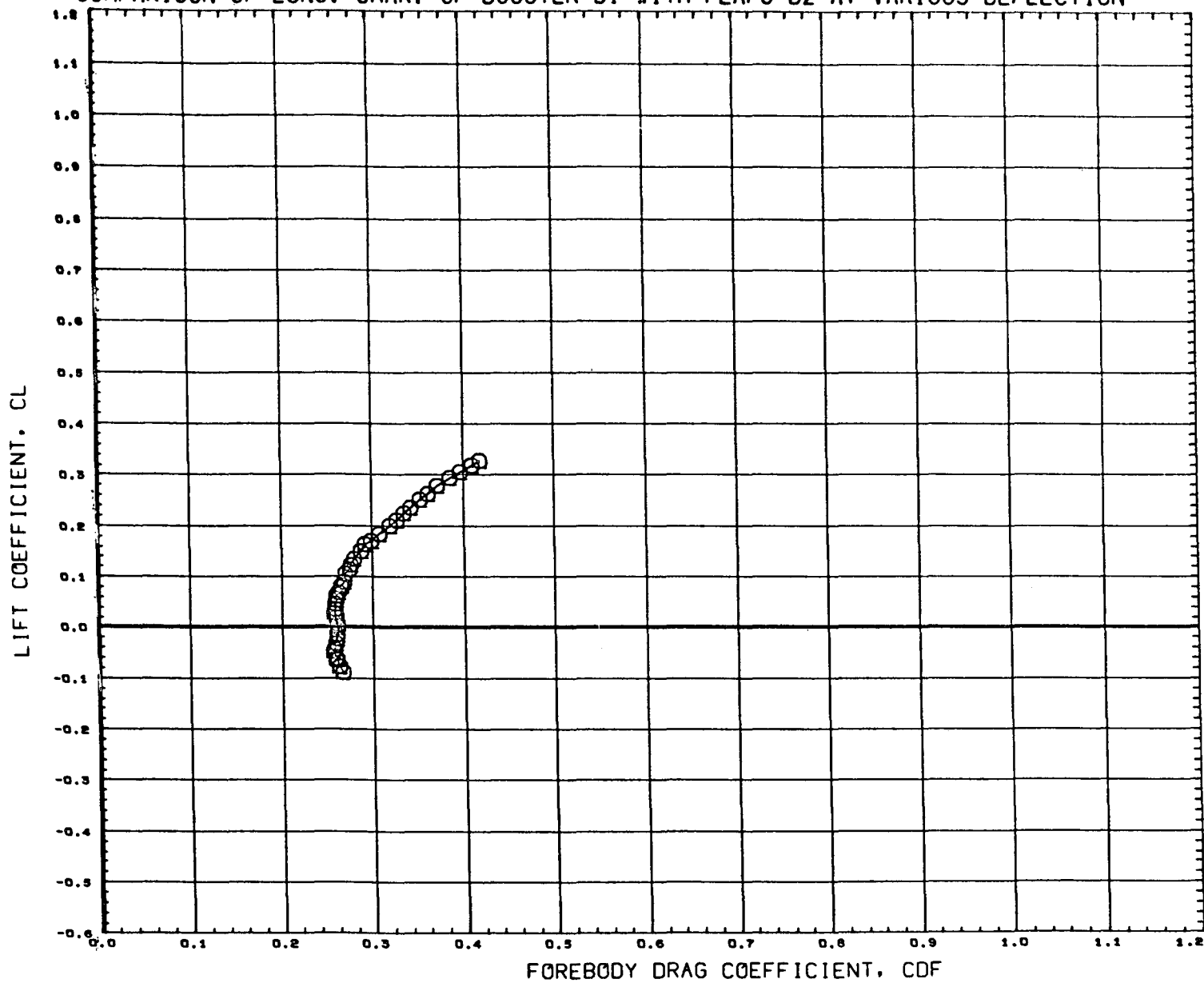
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 571

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

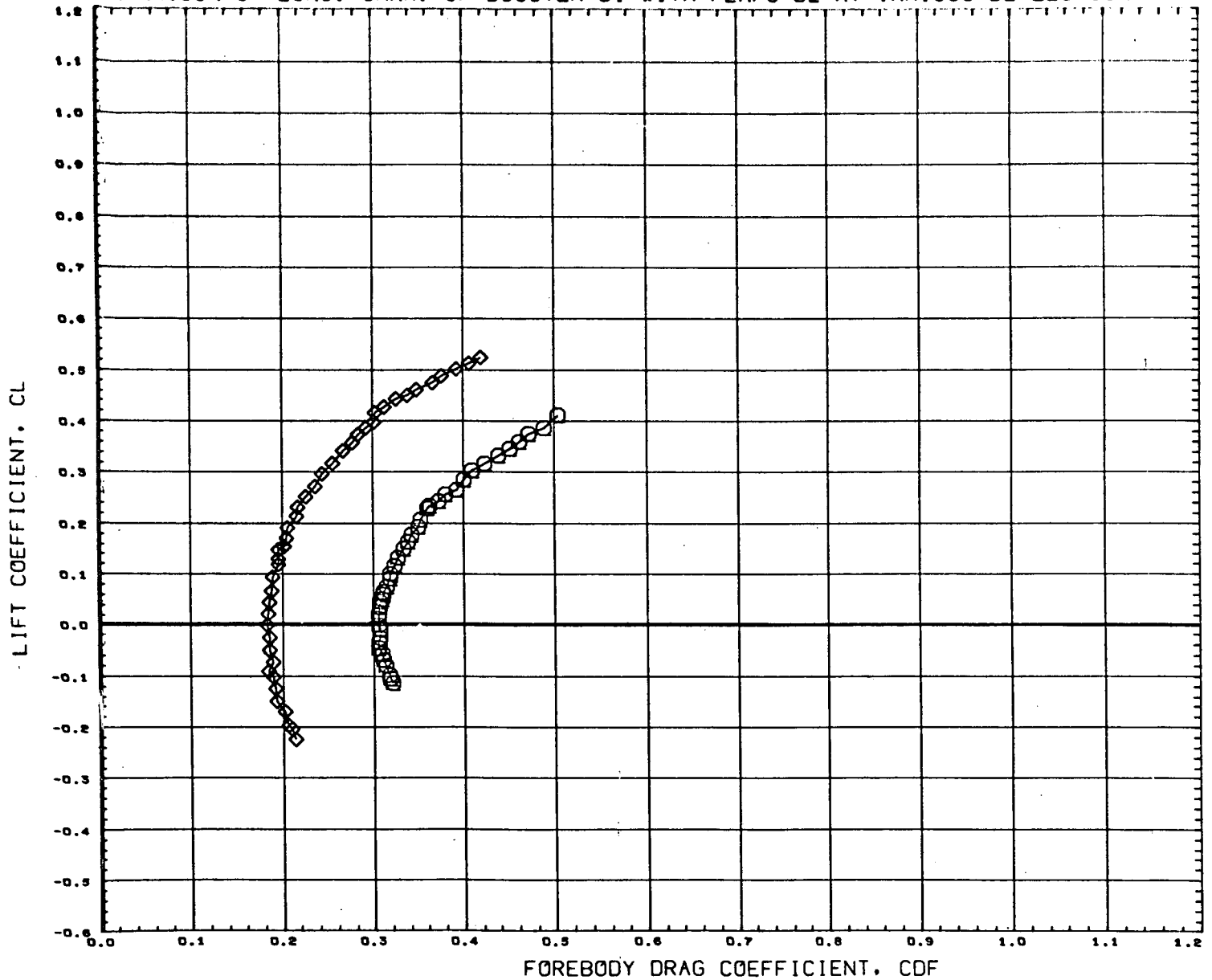
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 572

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

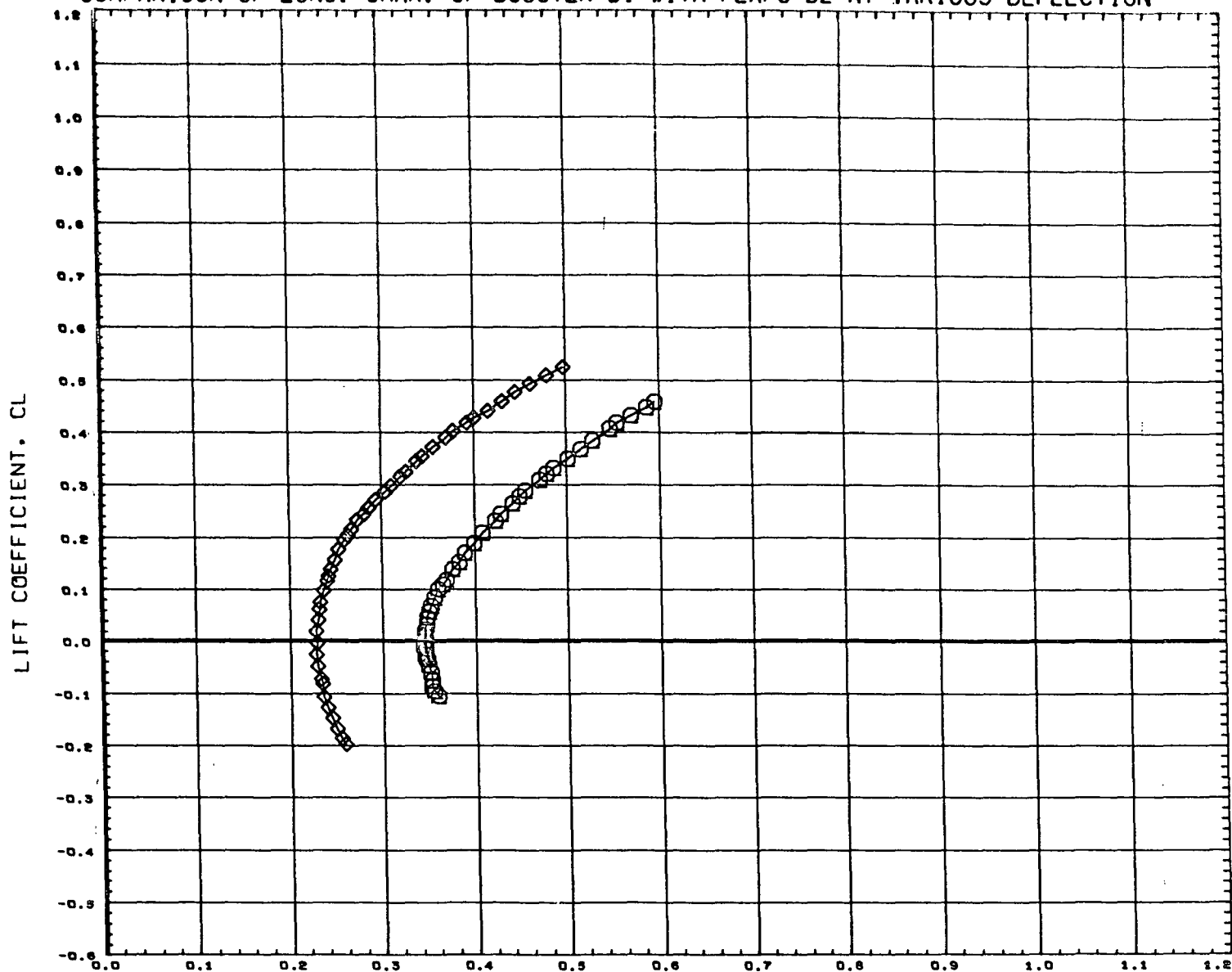
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 573

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



FOREBODY DRAG COEFFICIENT, CDF

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

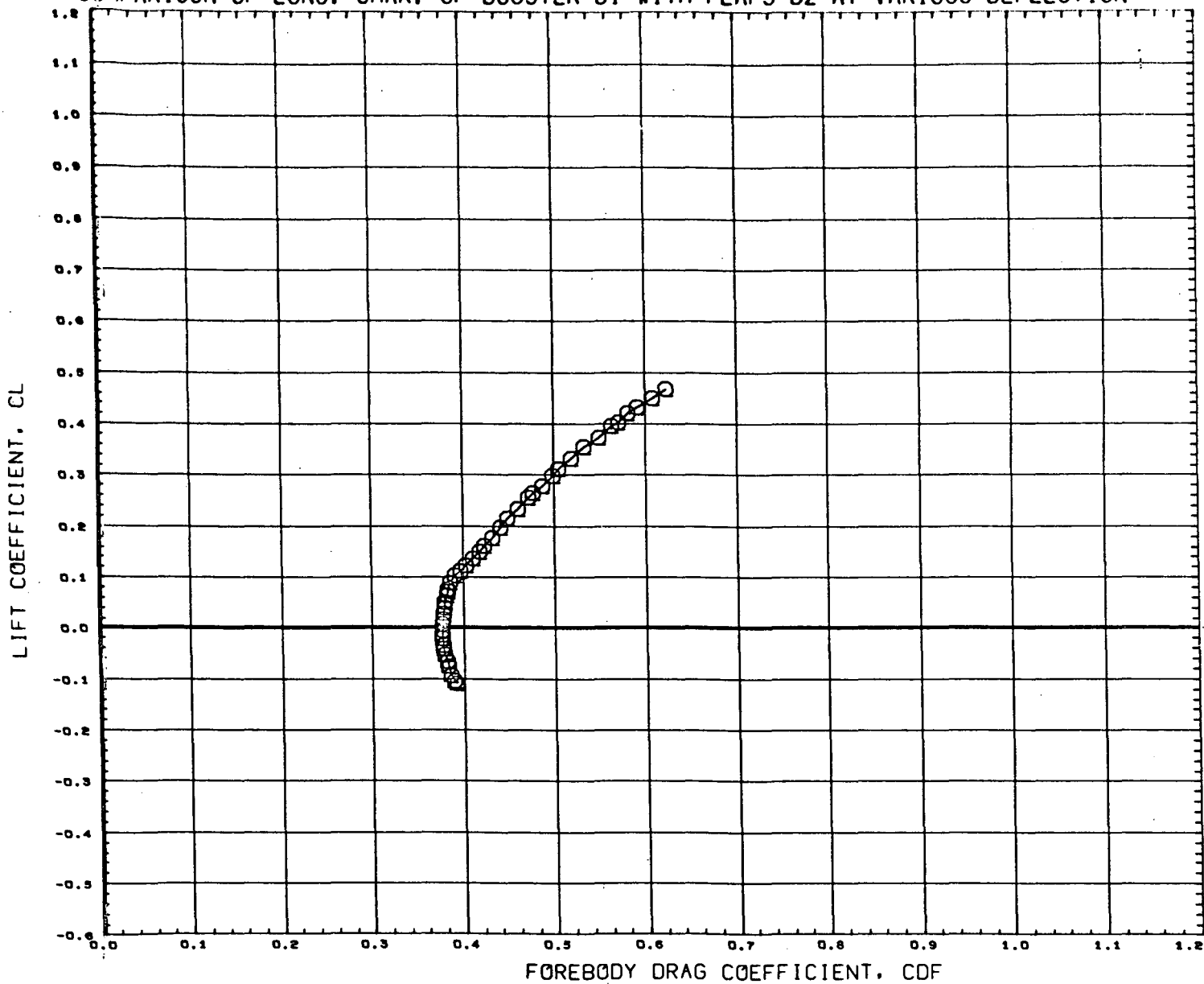
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 574

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

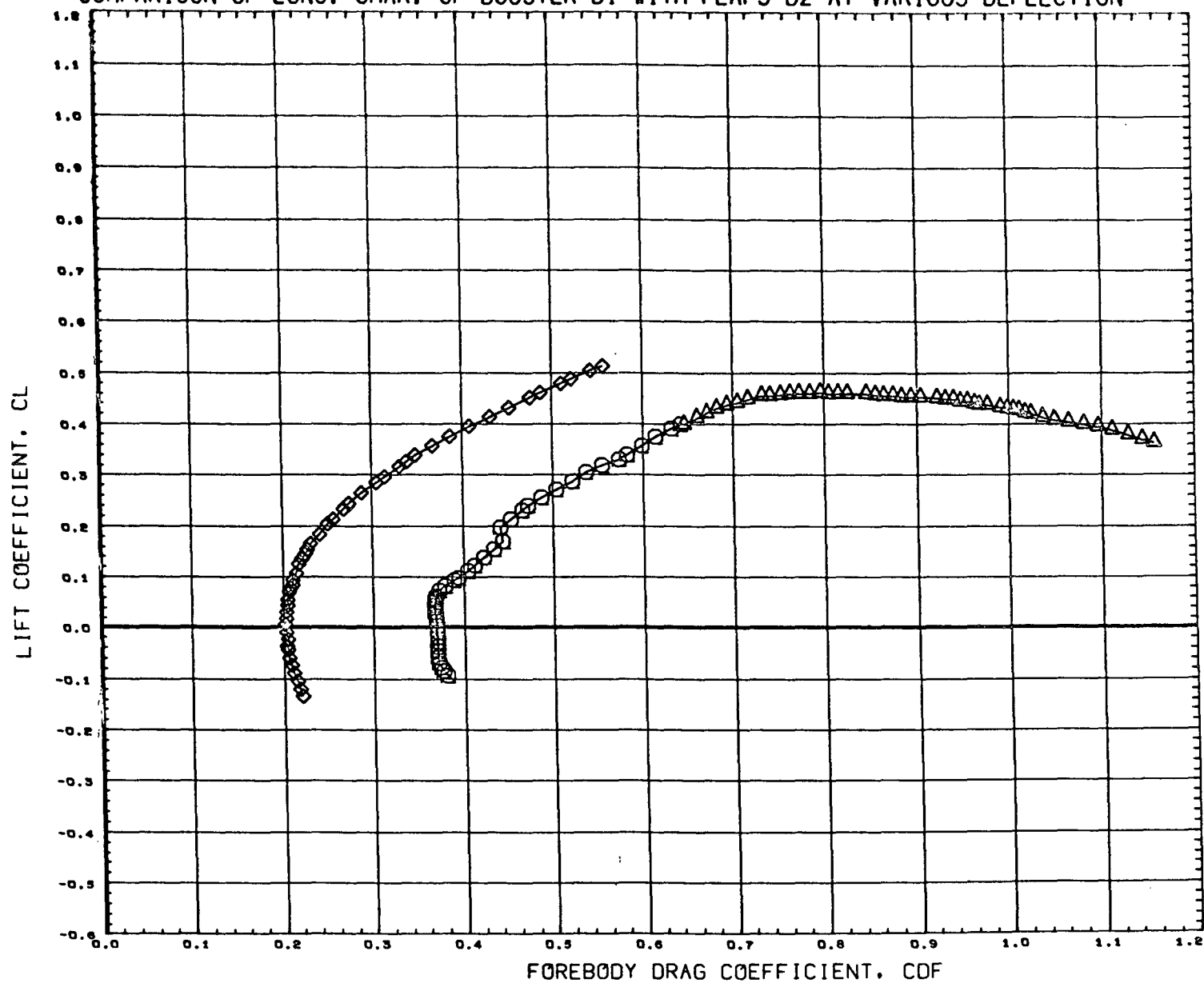
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 575

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7608)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7609)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7610)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

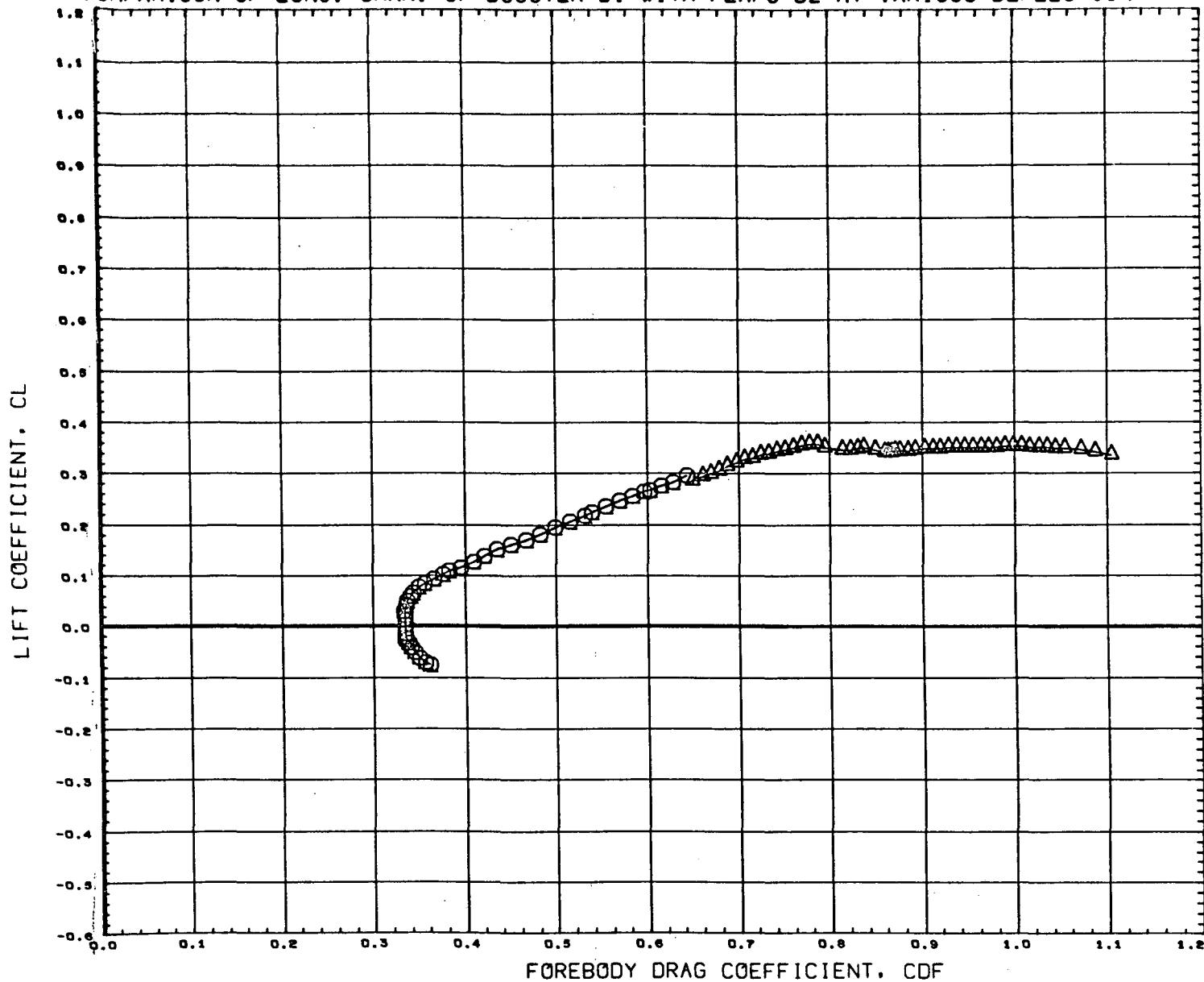
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 576

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

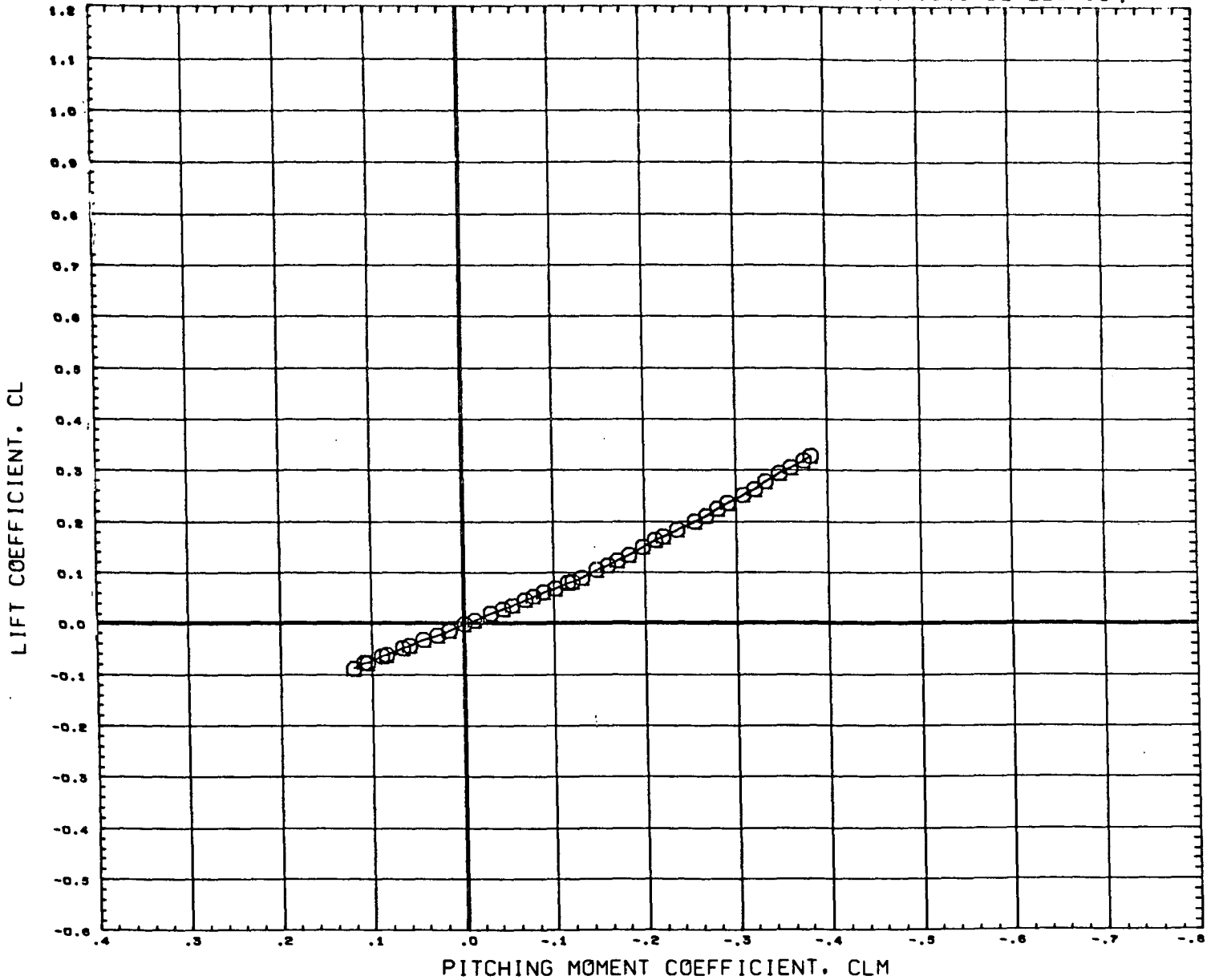
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMHP	731.0004	IN.
YMHP	0.0000	IN.
ZMHP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

4.47

PAGE 577

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	DATA NOT AVAILABLE FOR ALL CONDITIONS

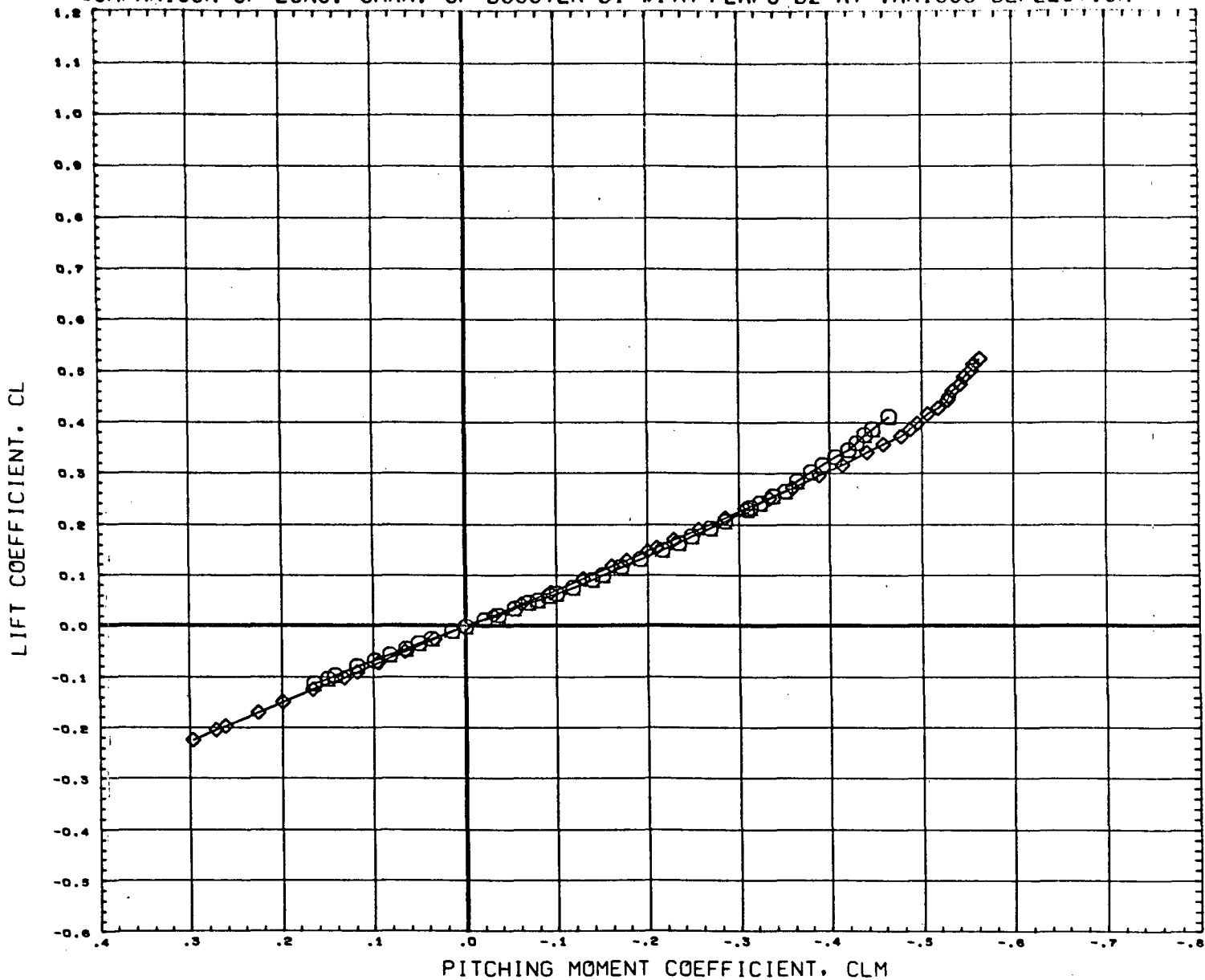
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 578

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

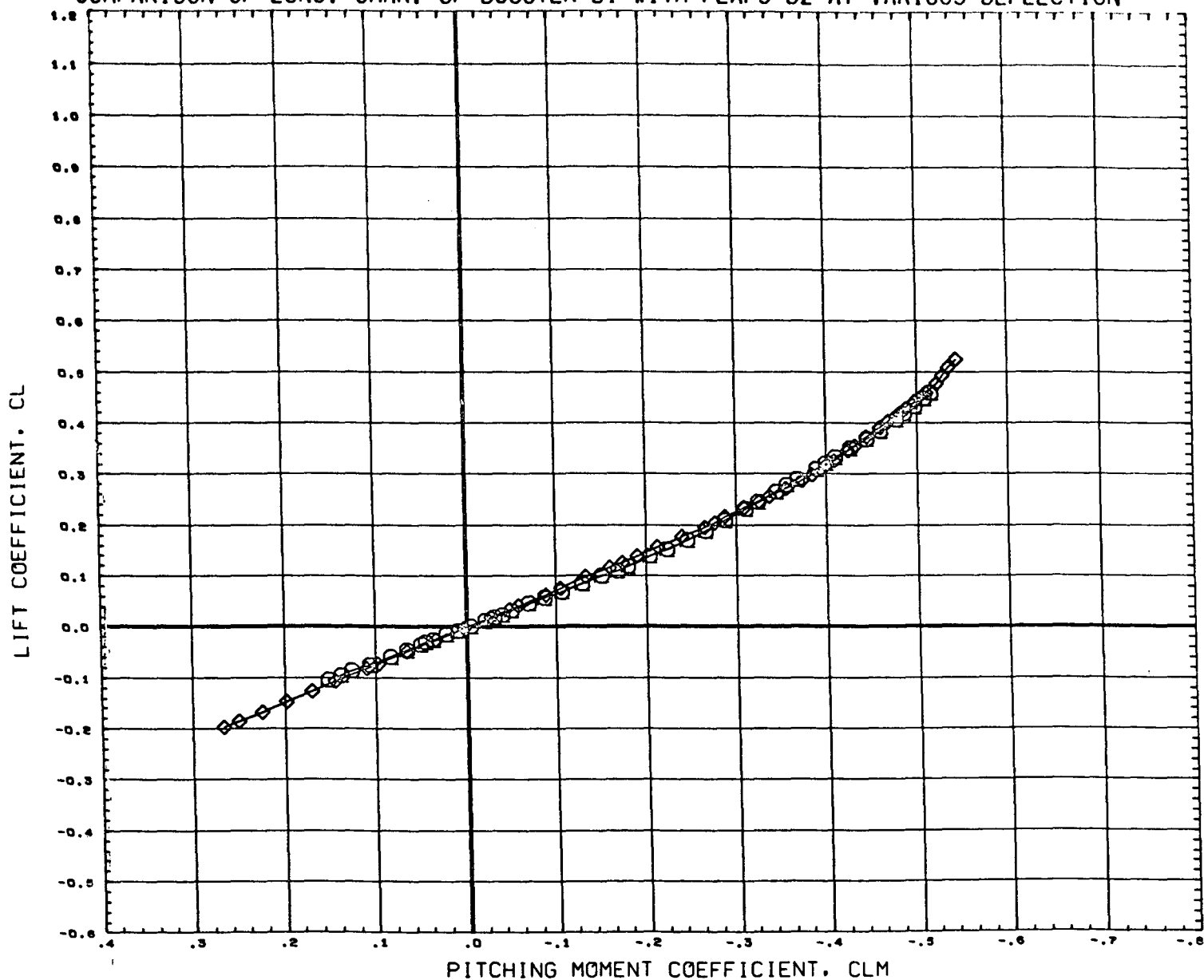
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0080	SCALE

MACH .94

PAGE 579

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7608)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7609)	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7610)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

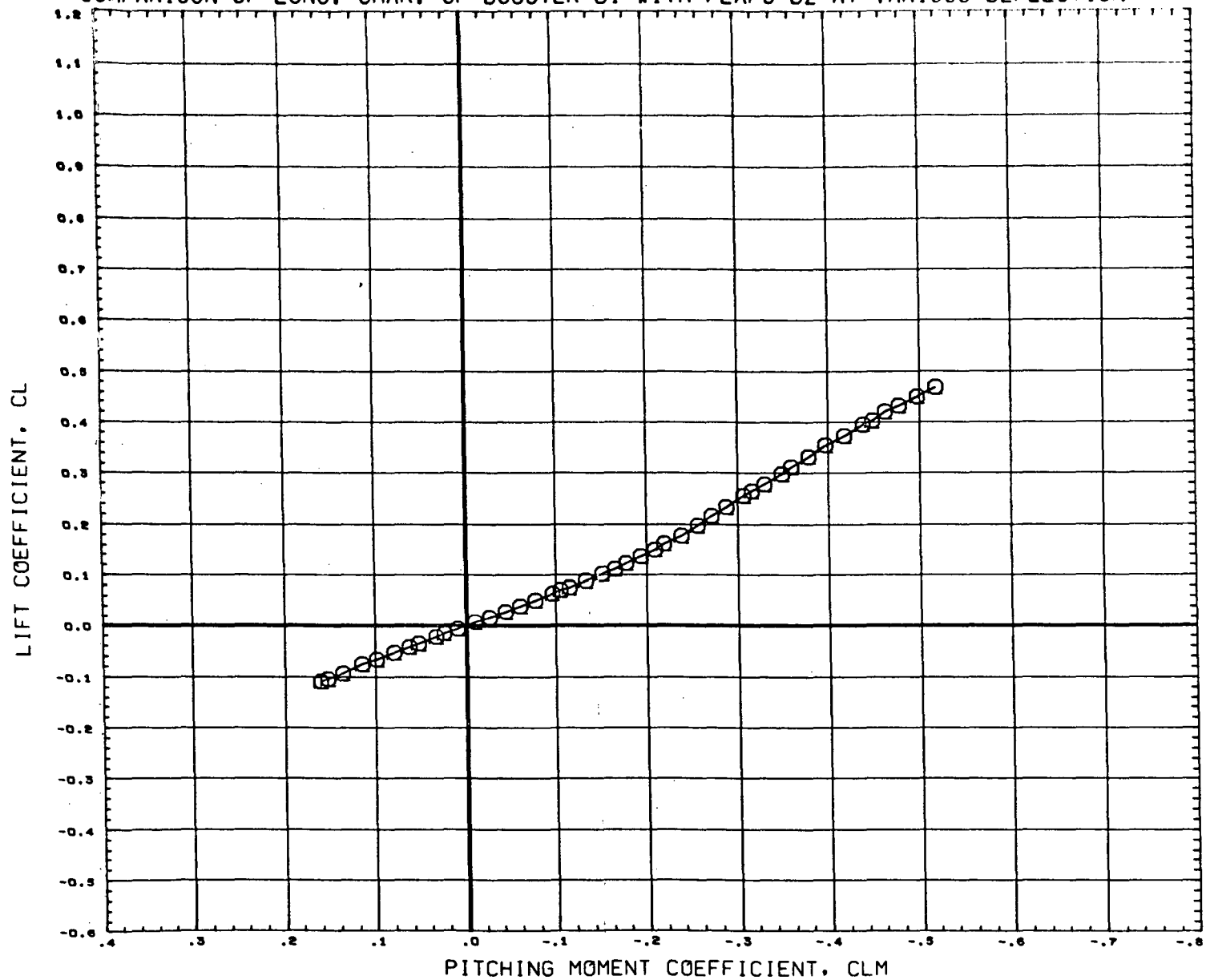
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.10

PAGE 580

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	DATA NOT AVAILABLE FOR ALL CONDITIONS
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

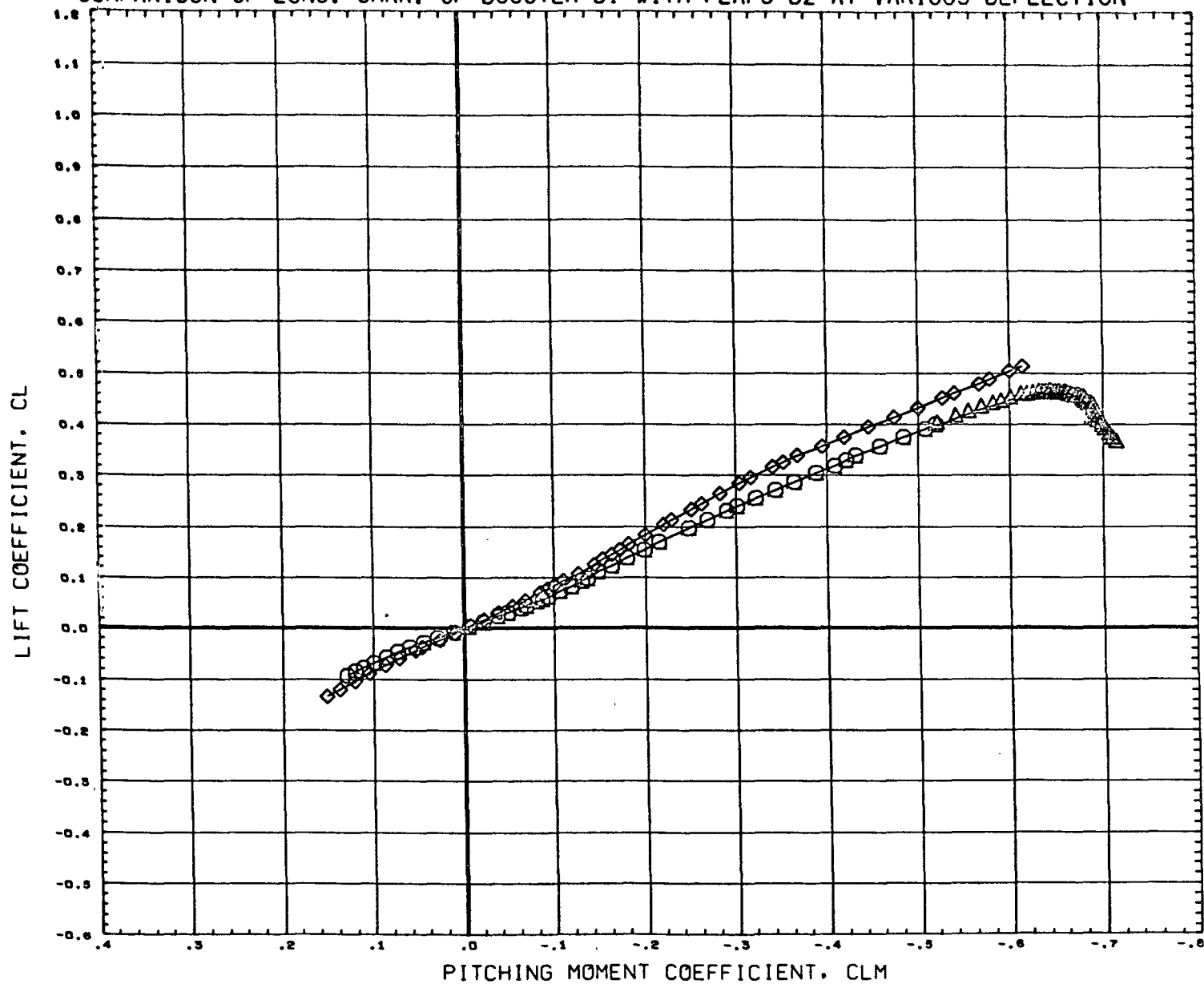
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0080 SCALE

MACH 1.51

PAGE 581

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7808)	○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809)	△	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810)	◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

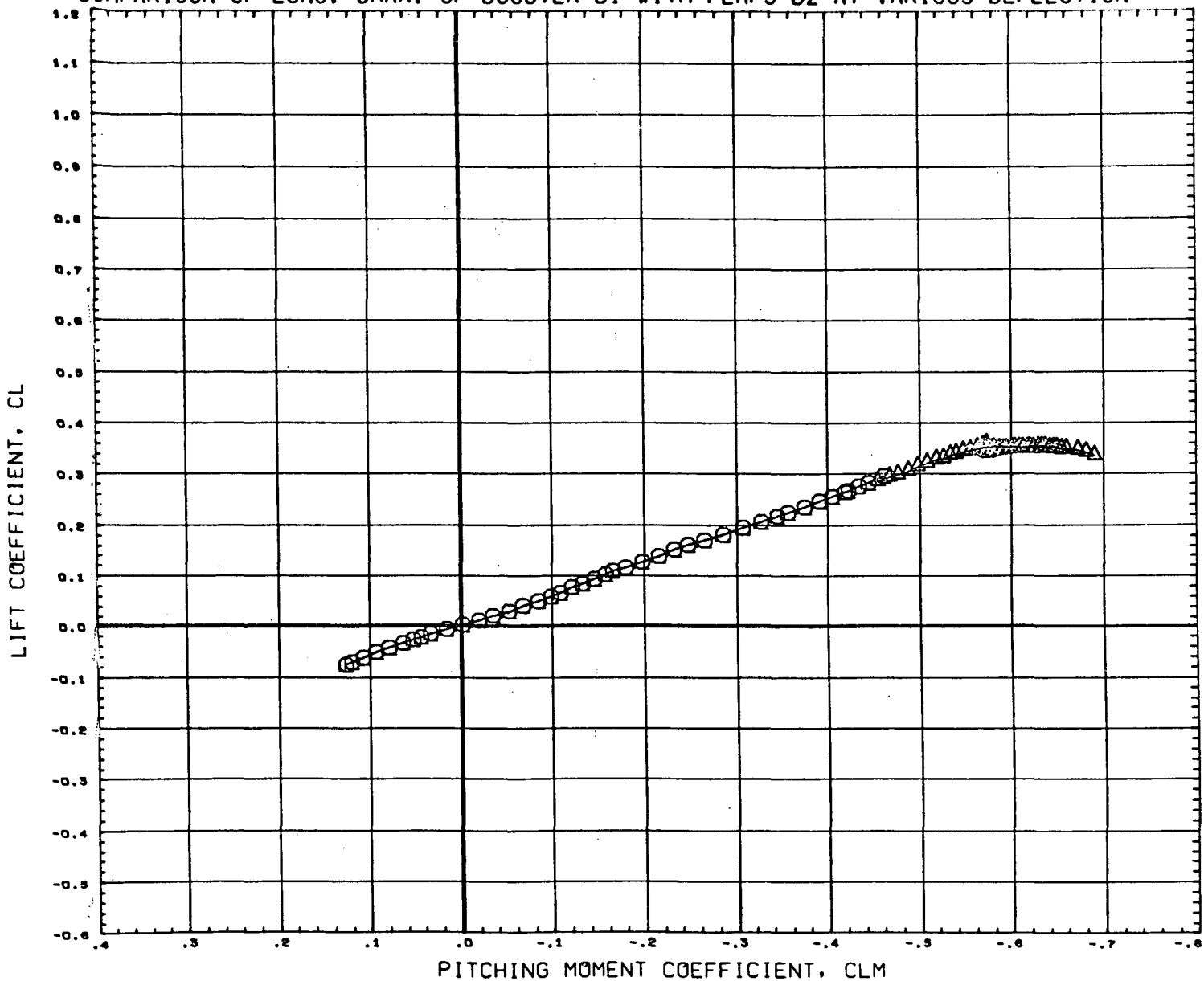
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 582

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH FLAPS D2 AT VARIOUS DEFLECTION



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7808) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7809) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2
(CD7810) ◇	DATA NOT AVAILABLE FOR ALL CONDITIONS

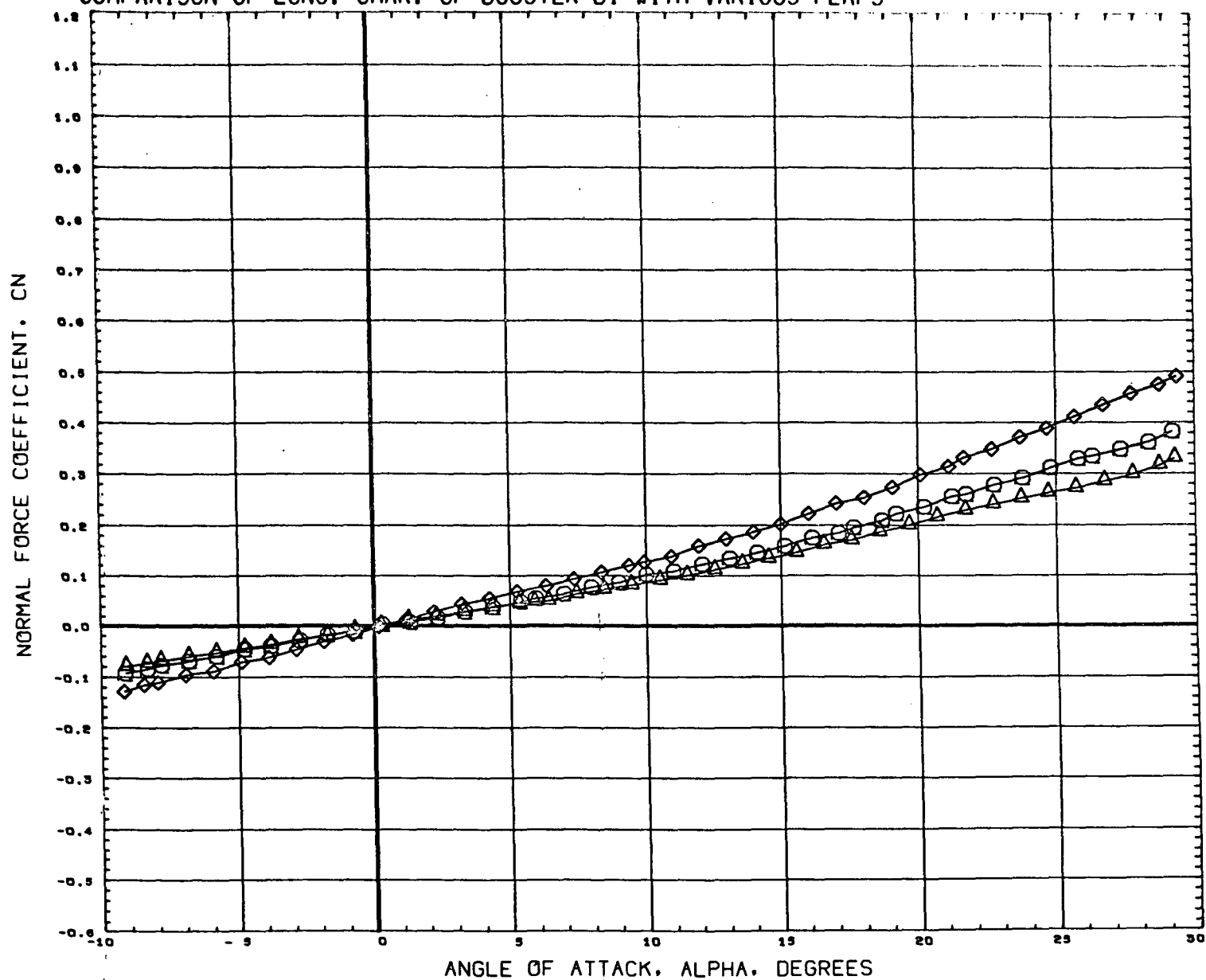
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	45.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 583

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

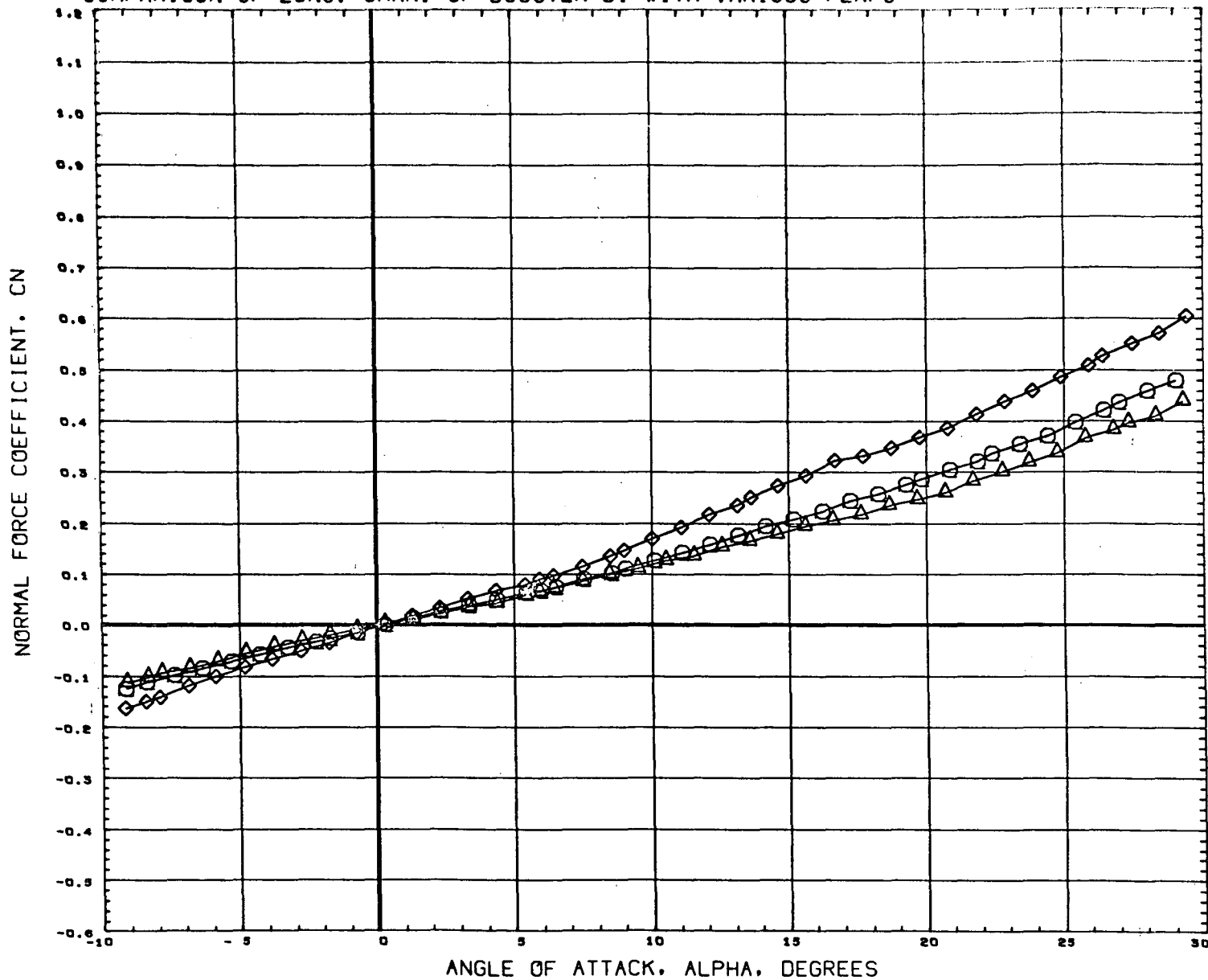
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 584

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

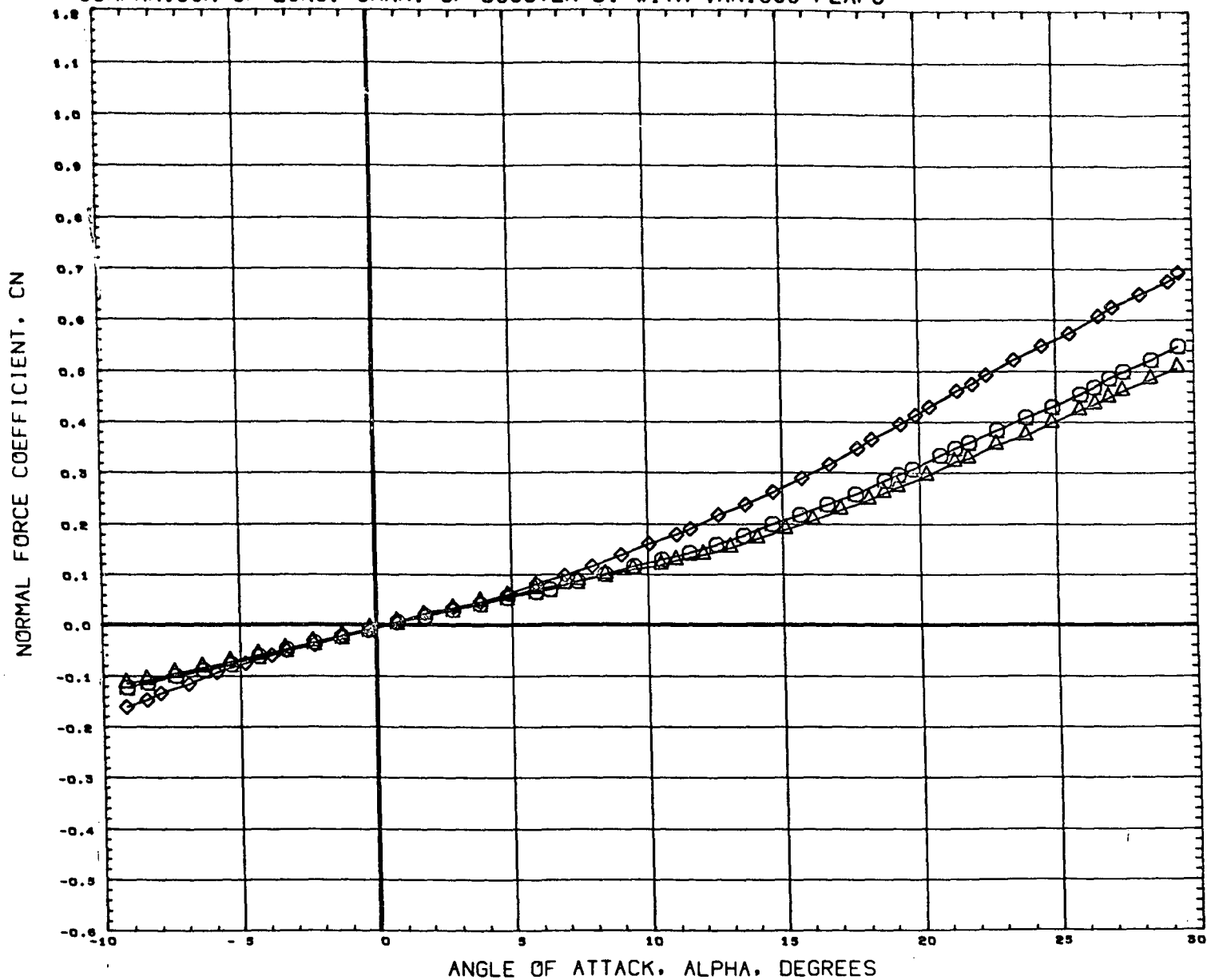
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

.94

PAGE 585

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET	SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	○	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	△	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7806)	◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

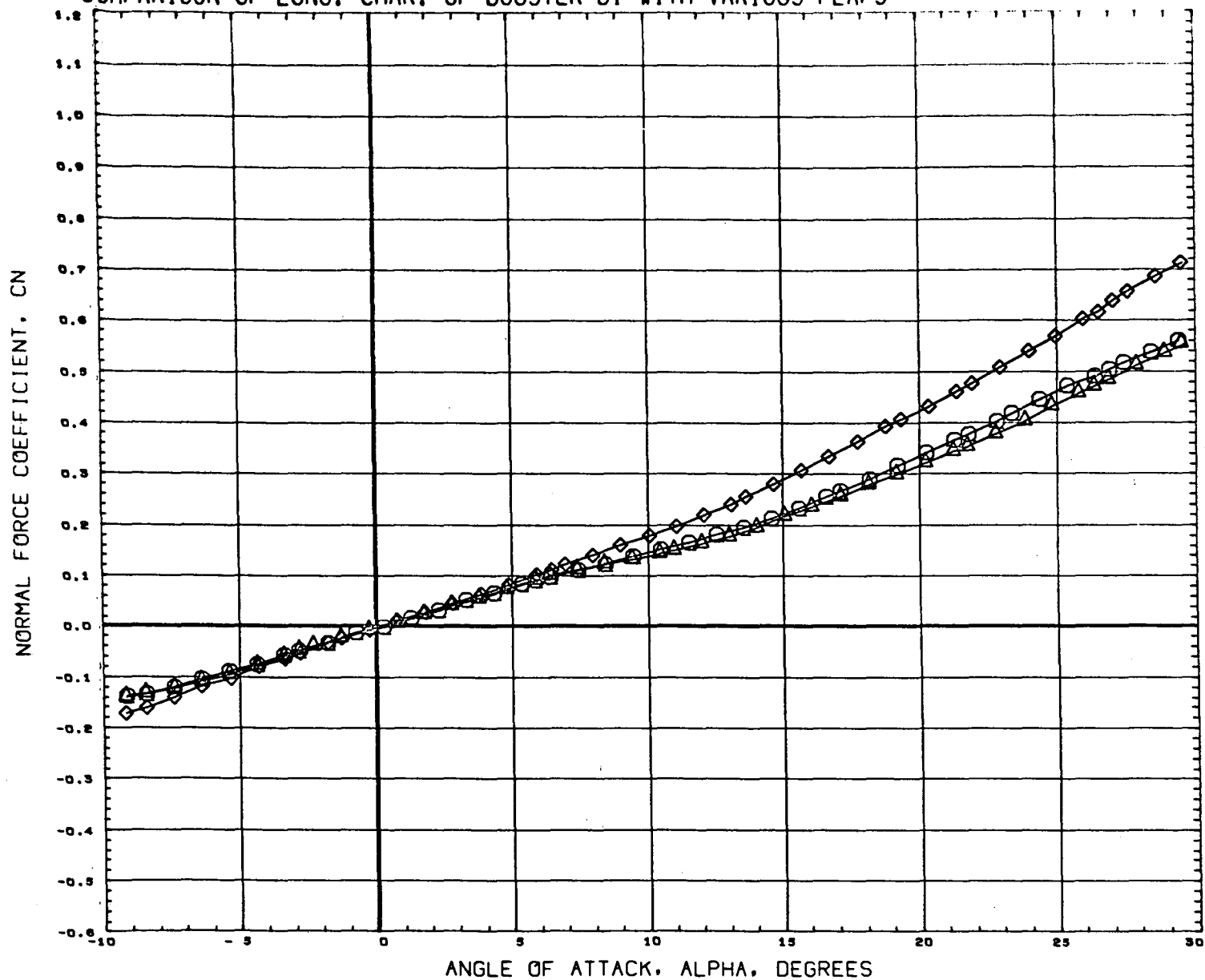
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 586

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

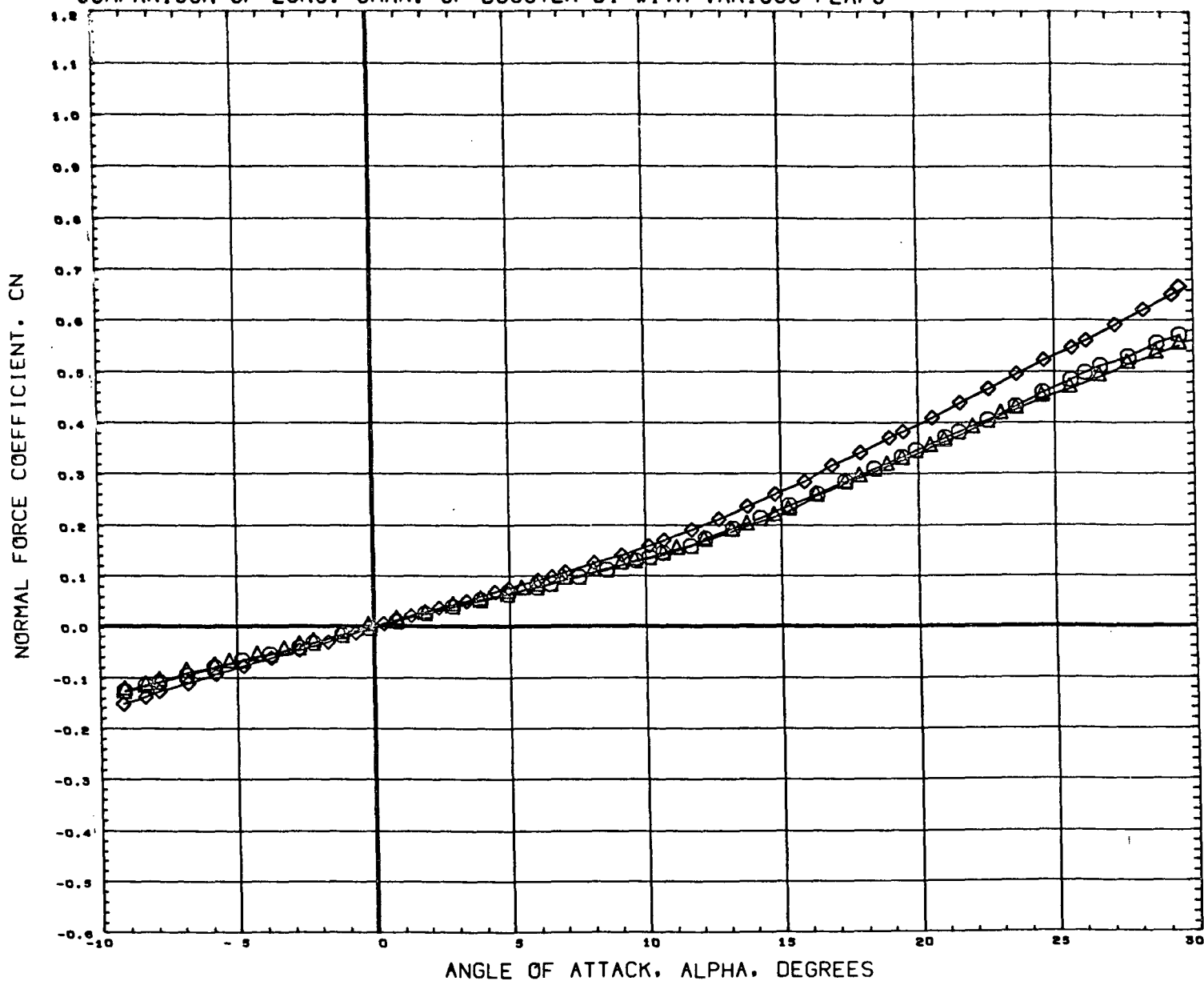
REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0060 SCALE

MACH

1.51

PAGE 587

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

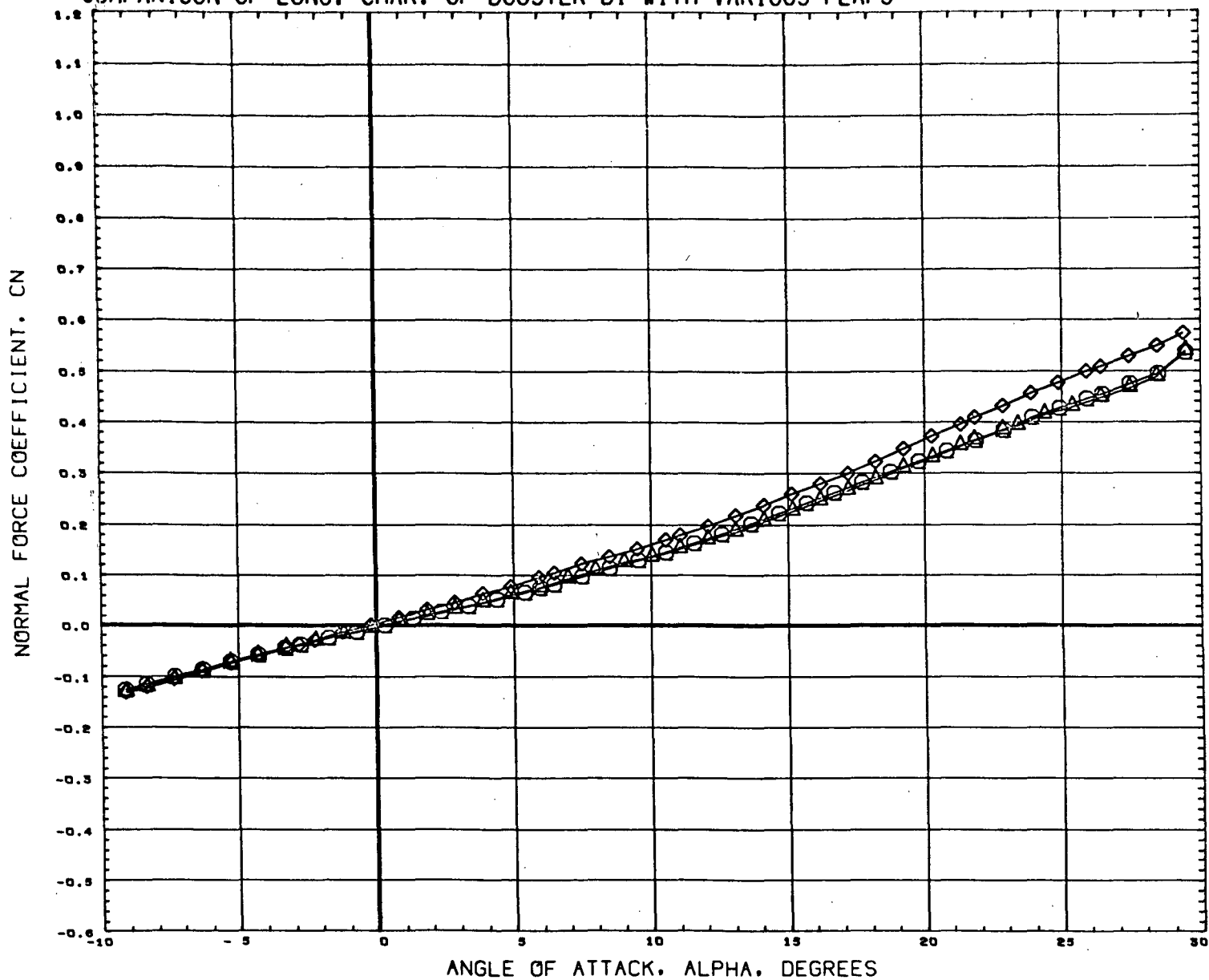
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 588

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) 8106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) 8107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) 8102

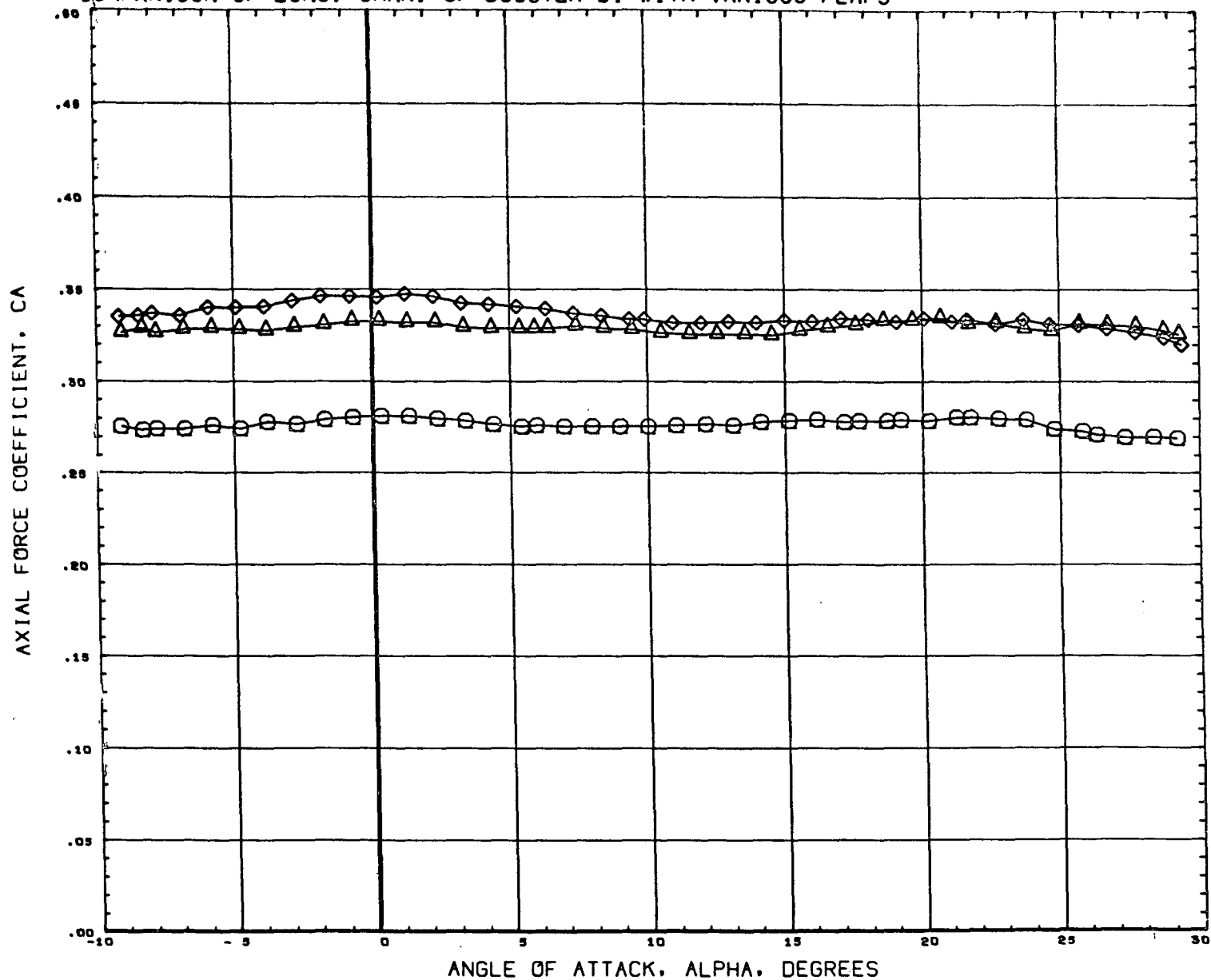
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XHRP	731.0004	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 589

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

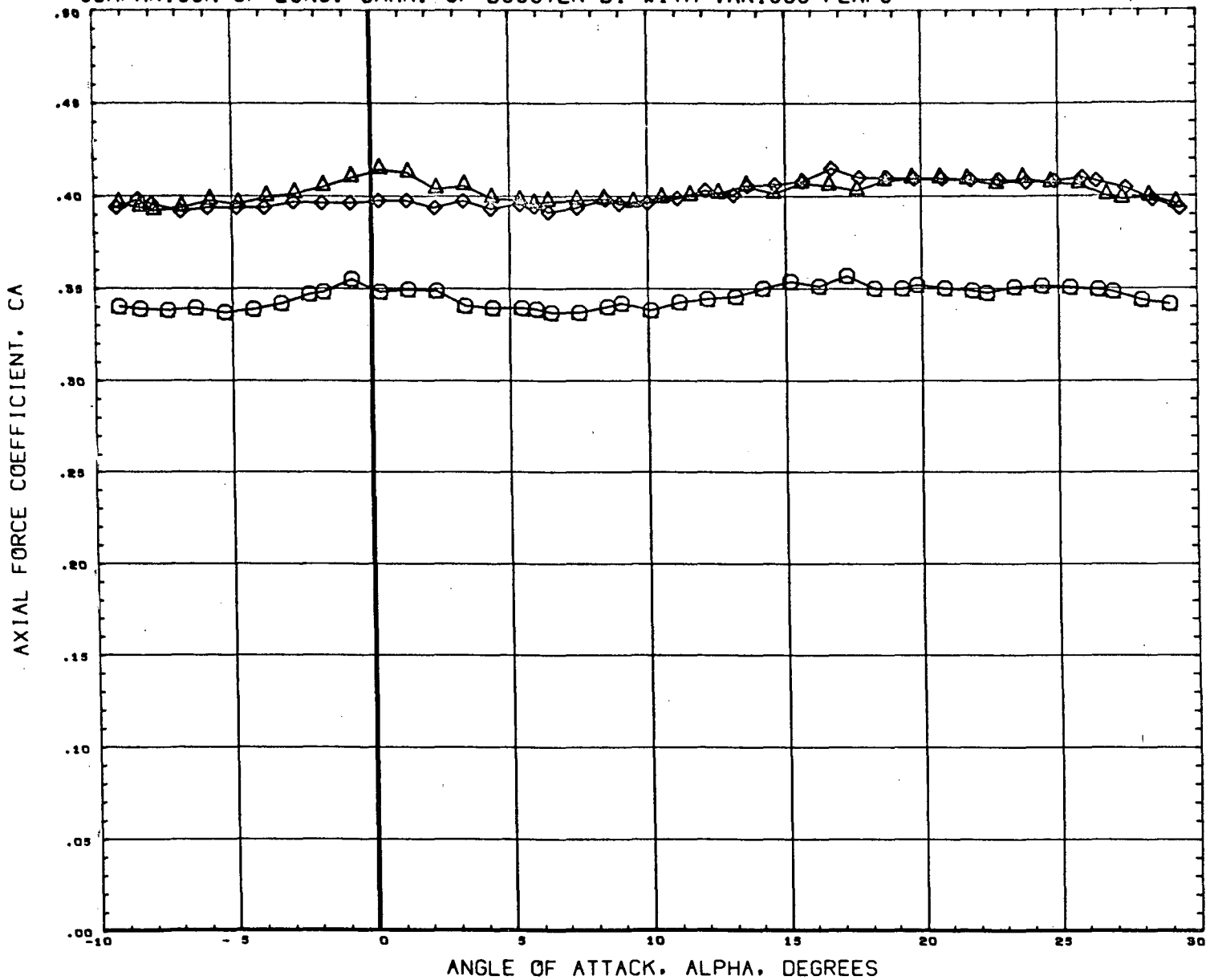
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 590

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

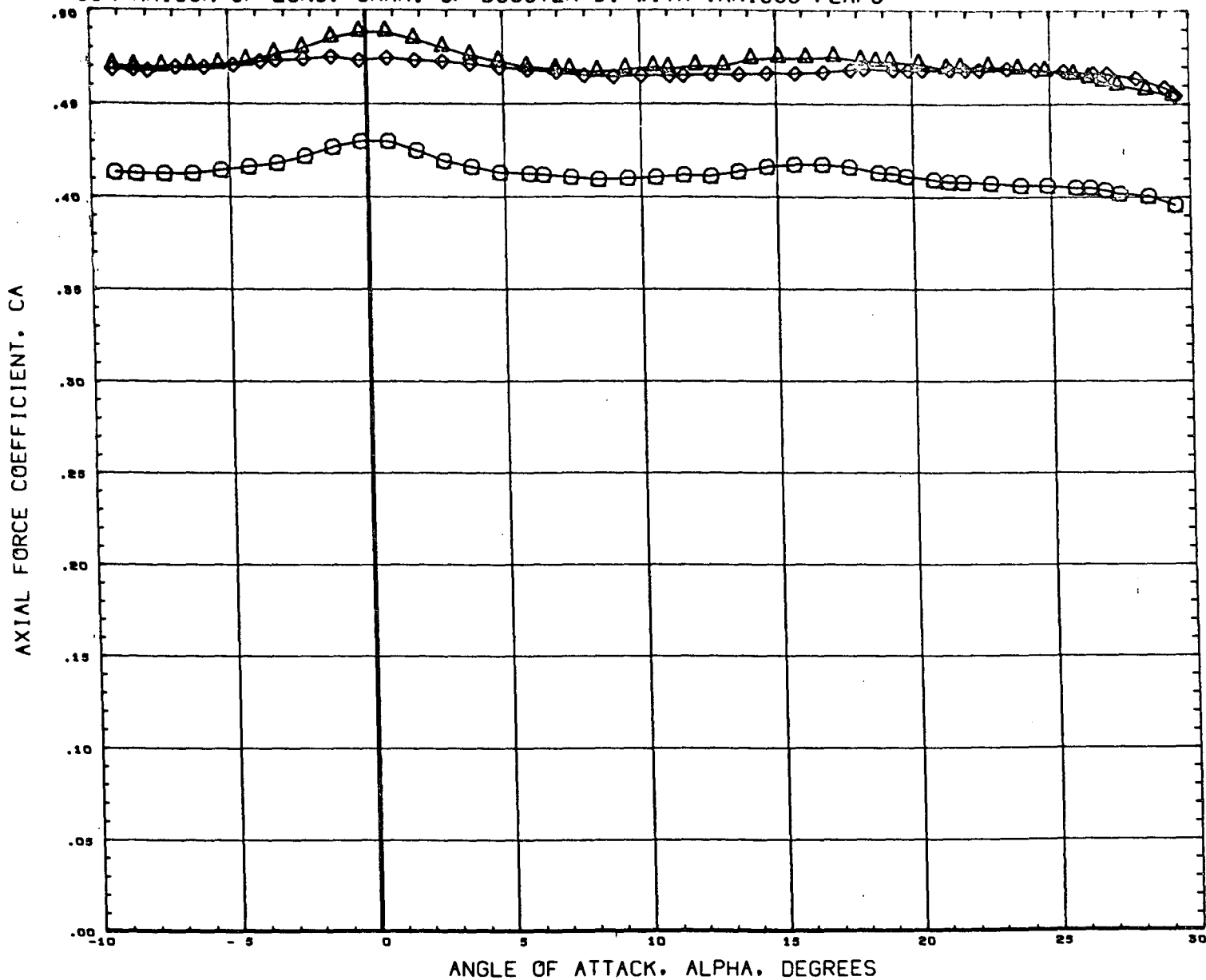
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 591

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

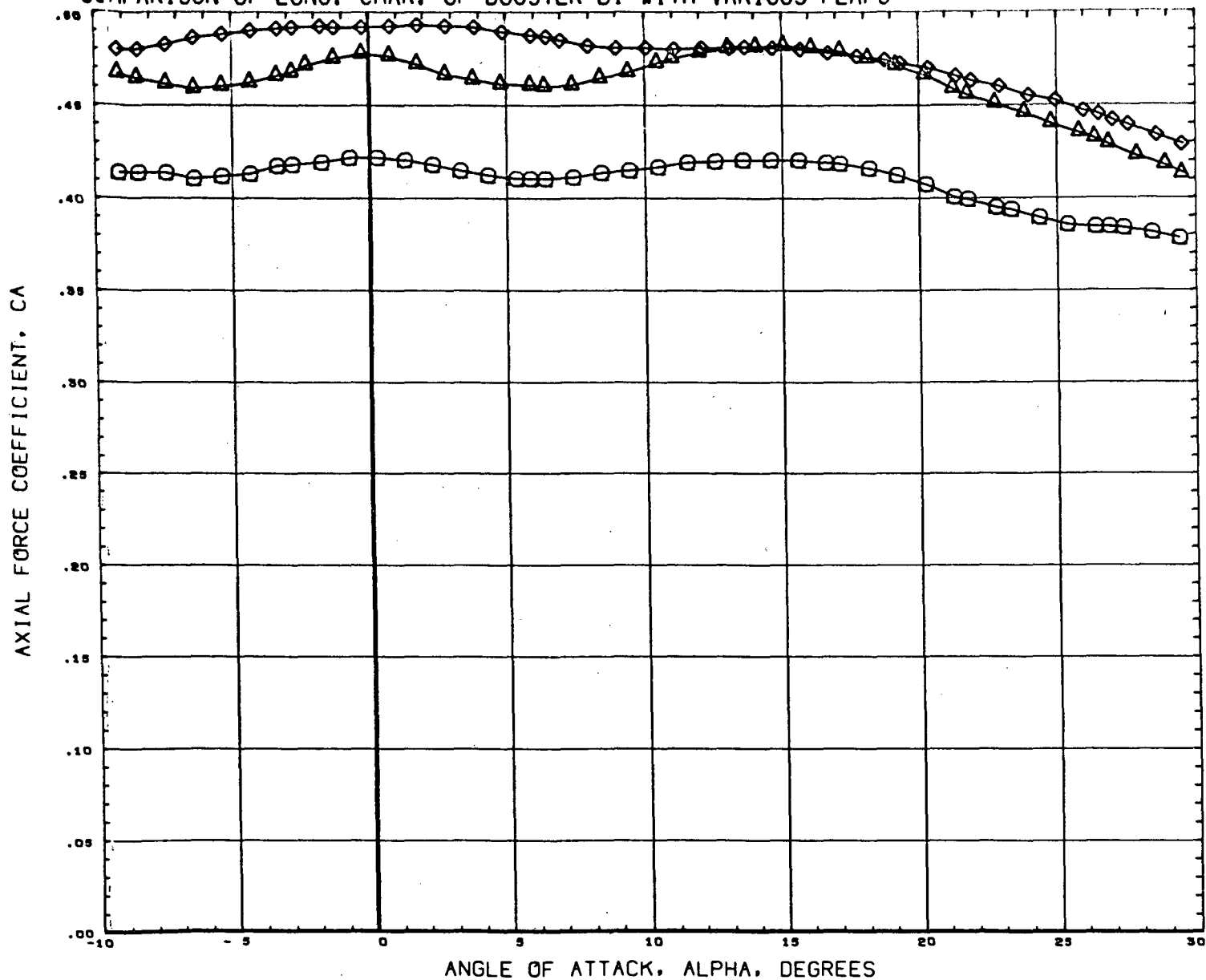
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 592

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

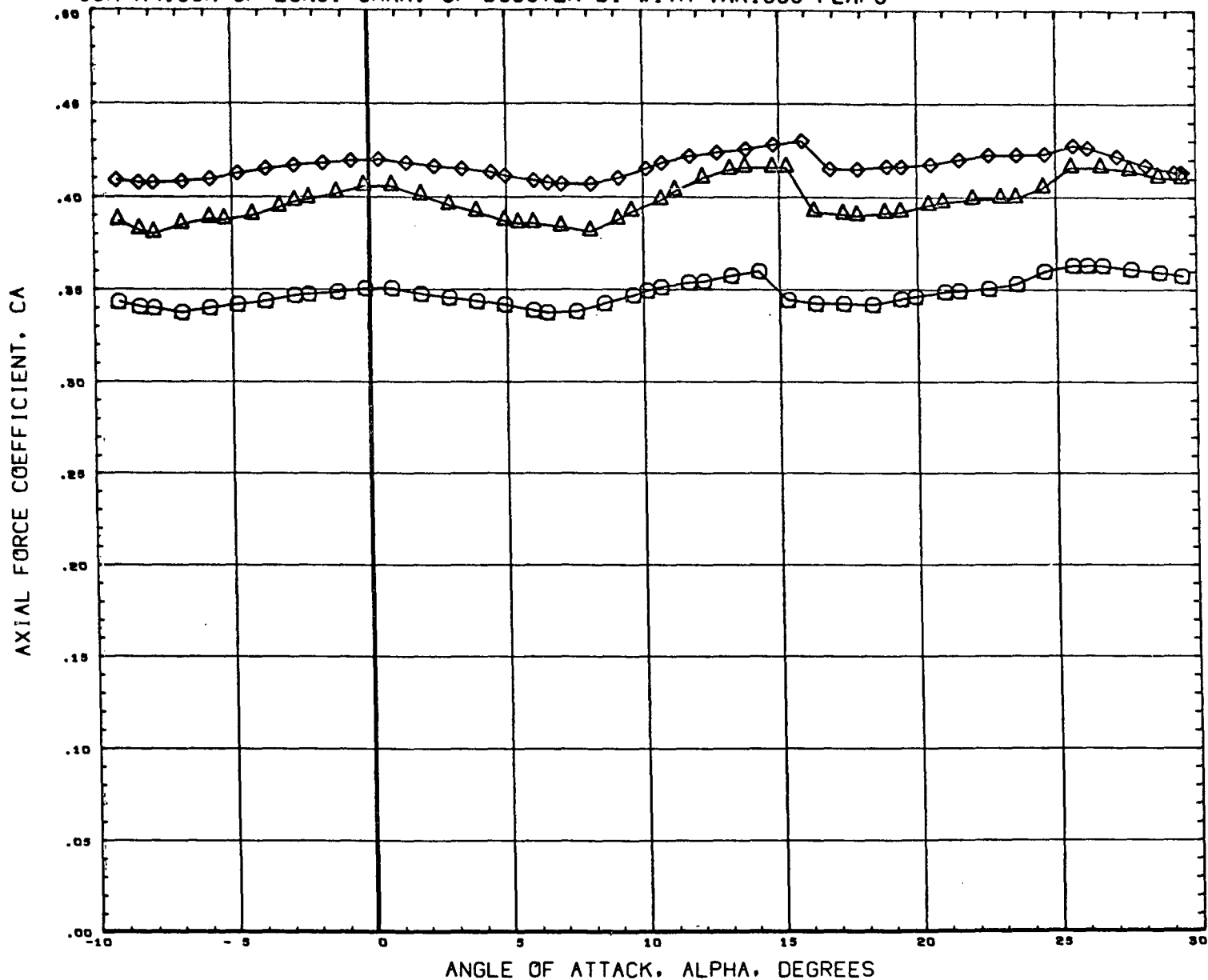
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 593

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

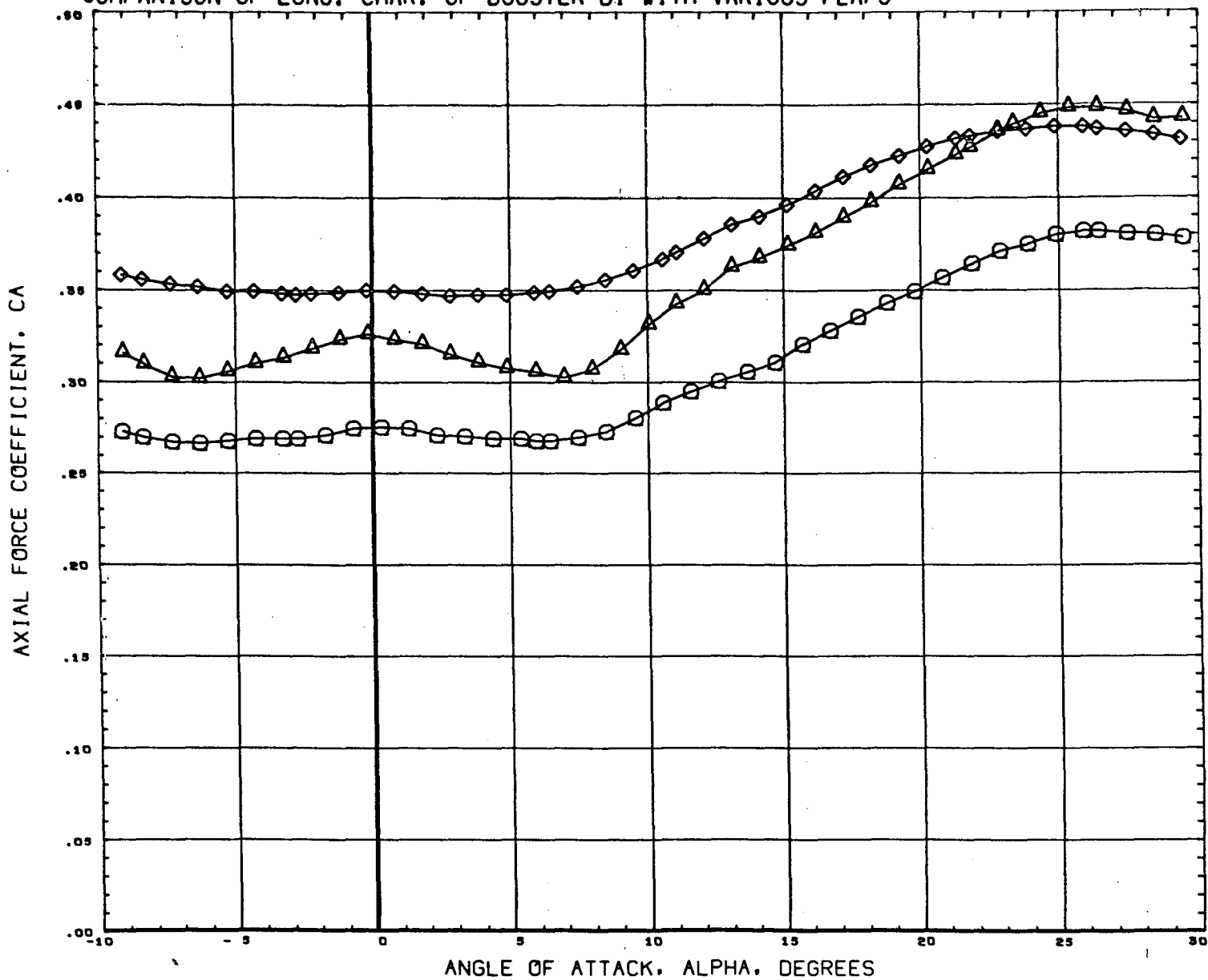
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 594

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) □	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

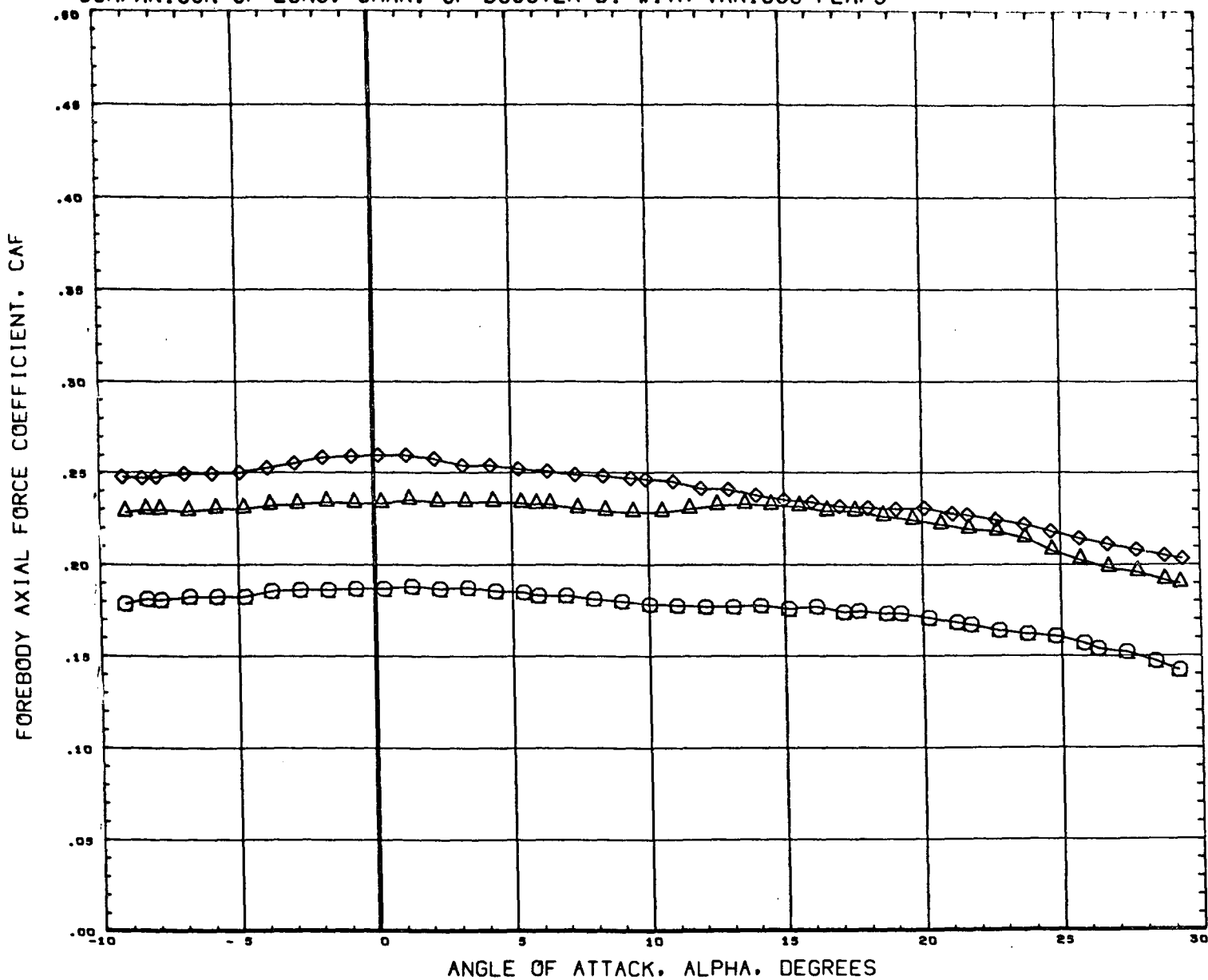
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION	
SREF	3155.3040 SQ.FT.
LREF	609.5004 IN.
BREF	882.0004 IN.
XMRP	731.0004 IN.
YMRP	0.0000 IN.
ZMRP	0.0000 IN.
SCALE	0.0060 SCALE

MACH 4.47

PAGE 595

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) \square	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) \triangle	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) \diamond	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

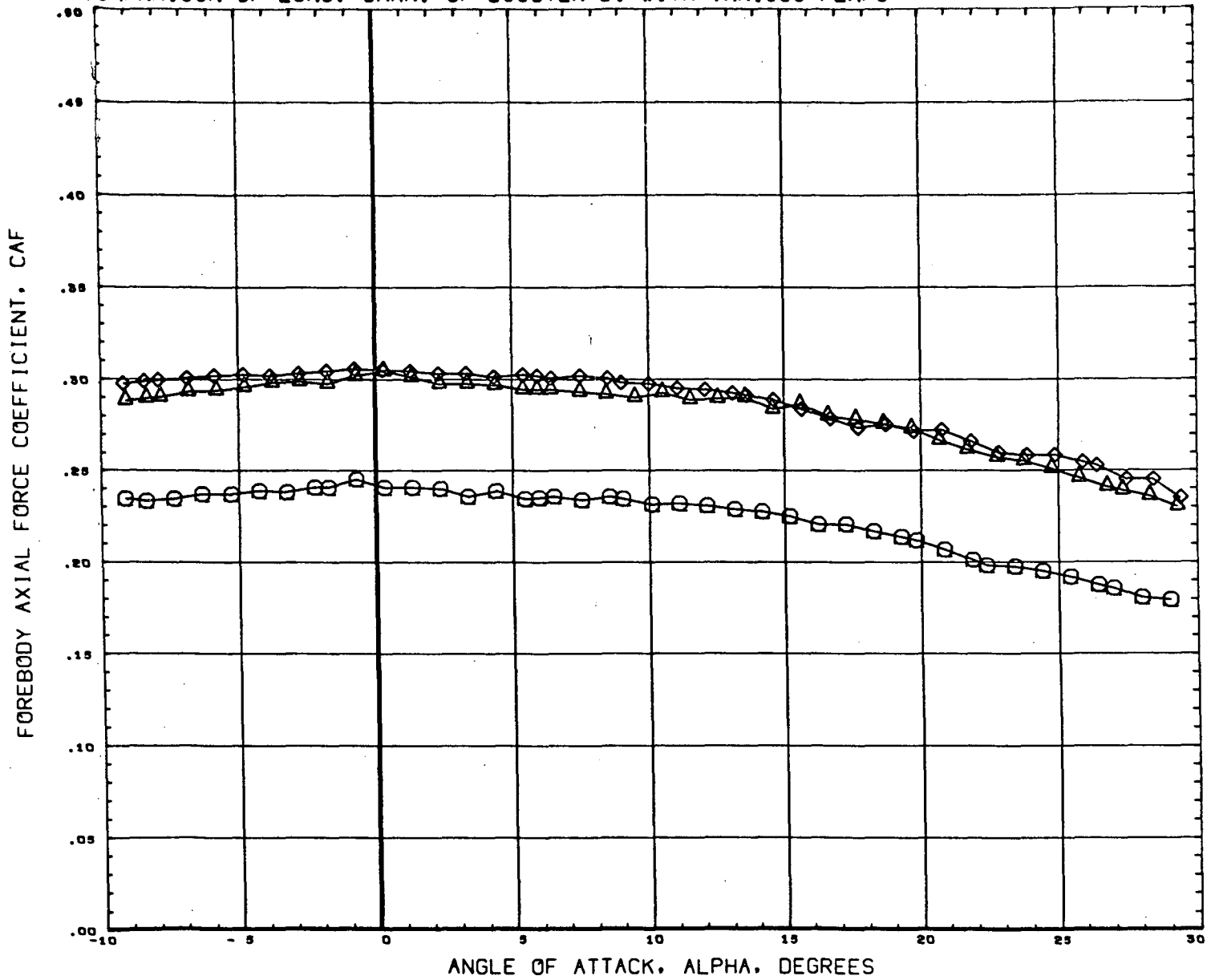
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 596

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

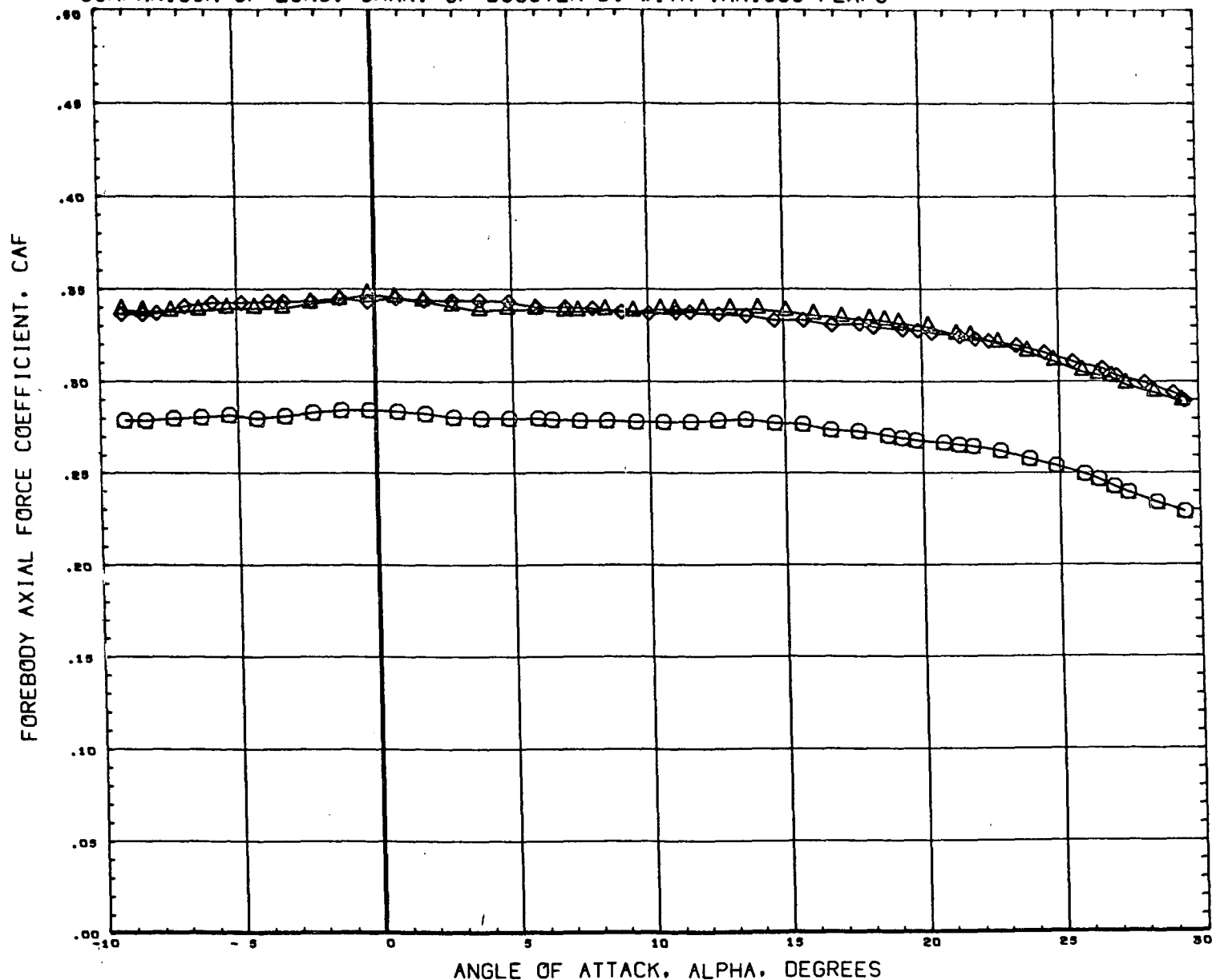
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 597

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

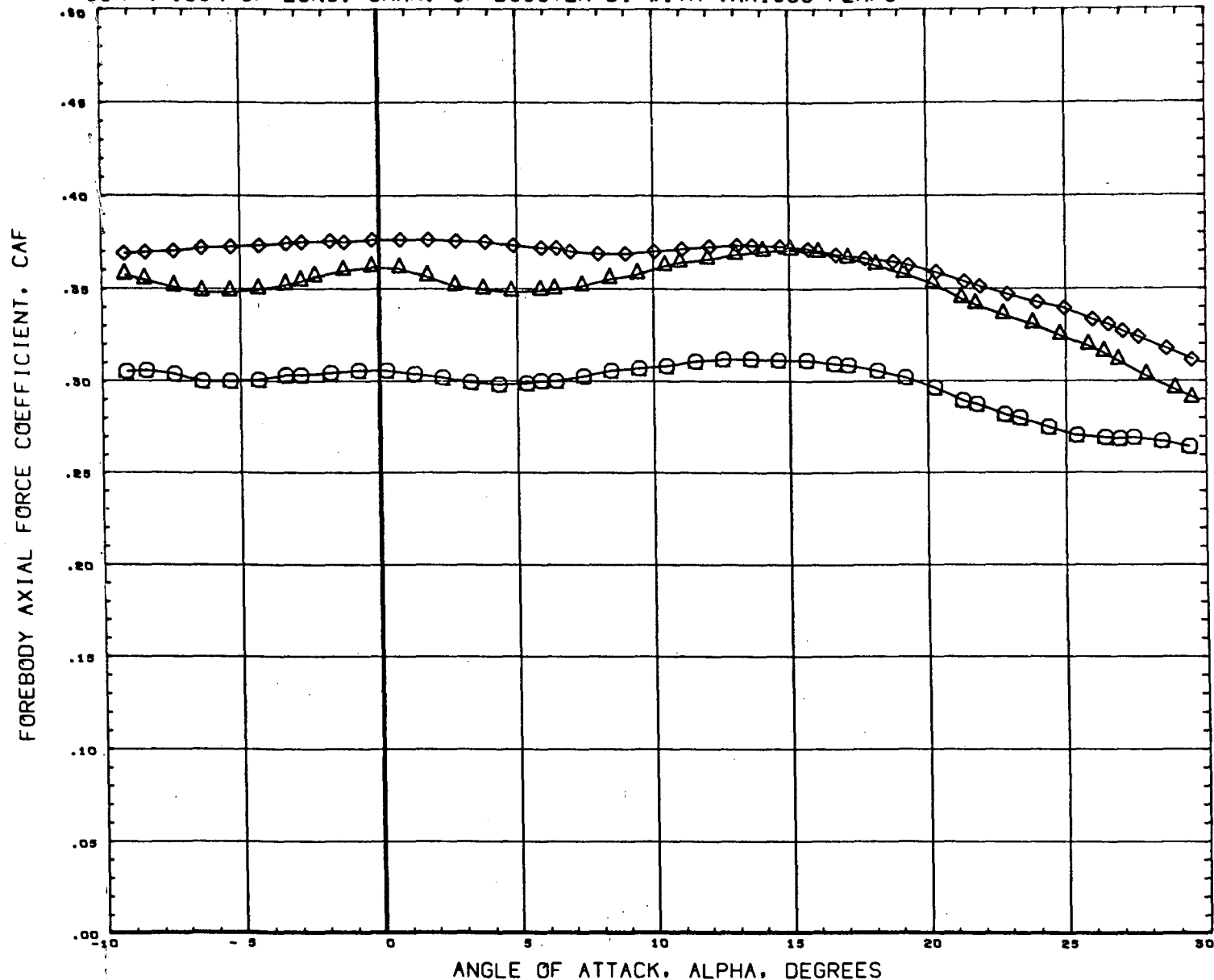
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 598

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7811) ○ MDAC S-222 BOOSTER ALONE (NOM. CG) B106

(CD7812) △ MDAC S-222 BOOSTER ALONE (NOM. CG) B107

(CD7808) ◇ MDAC S-222 BOOSTER ALONE (NOM. CG) B102

BETA FLAPS

0.000 75.000

0.000 75.000

0.000 75.000

REFERENCE INFORMATION

SREF 3155.3040 SQ. FT.

LREF 609.5004 IN.

BREF 882.0004 IN.

XMRP 731.0004 IN.

YMRP 0.0000 IN.

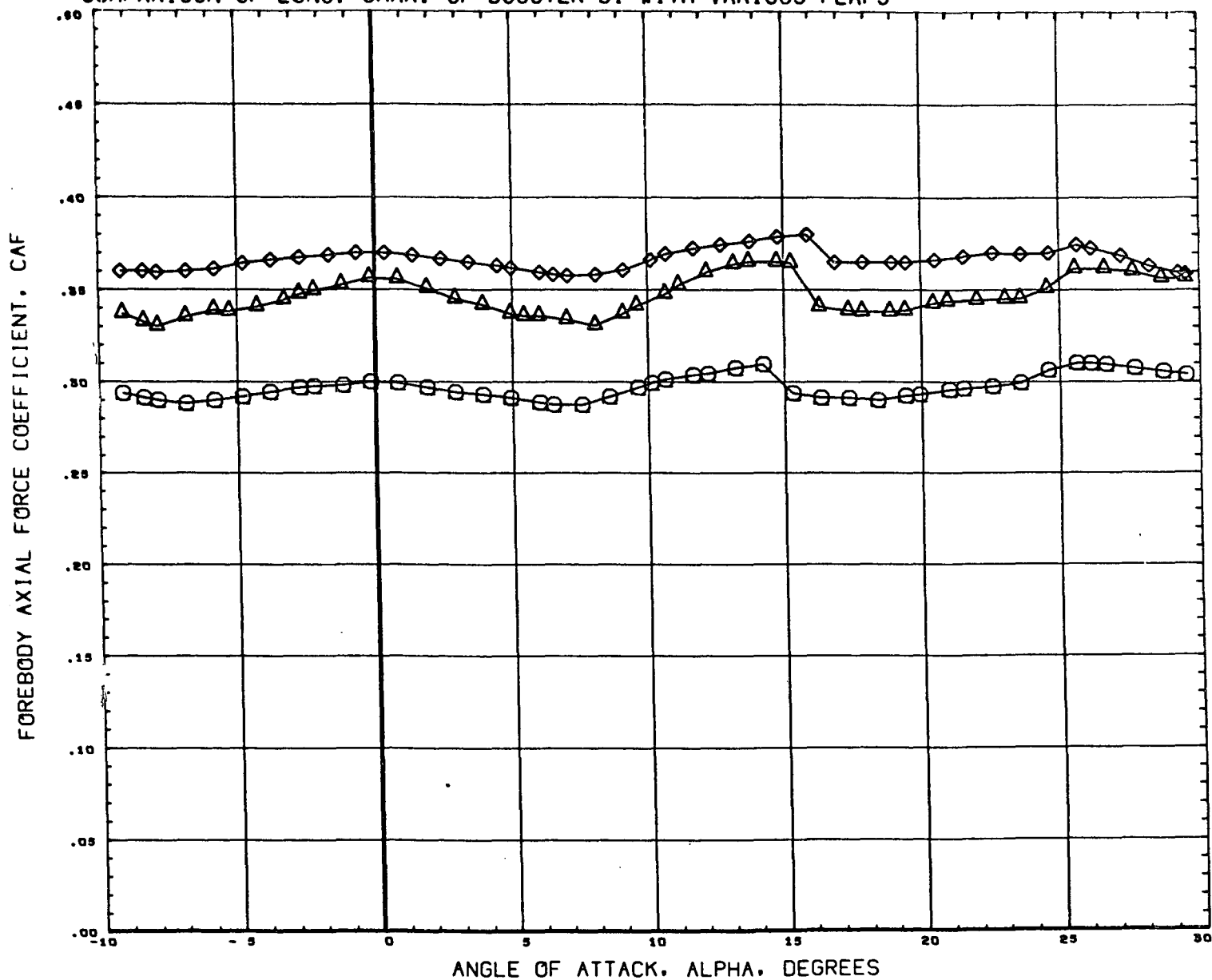
ZMRP 0.0000 IN.

SCALE 0.0060 SCALE

MACH 1.51

PAGE 599

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7611)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7612)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7608)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

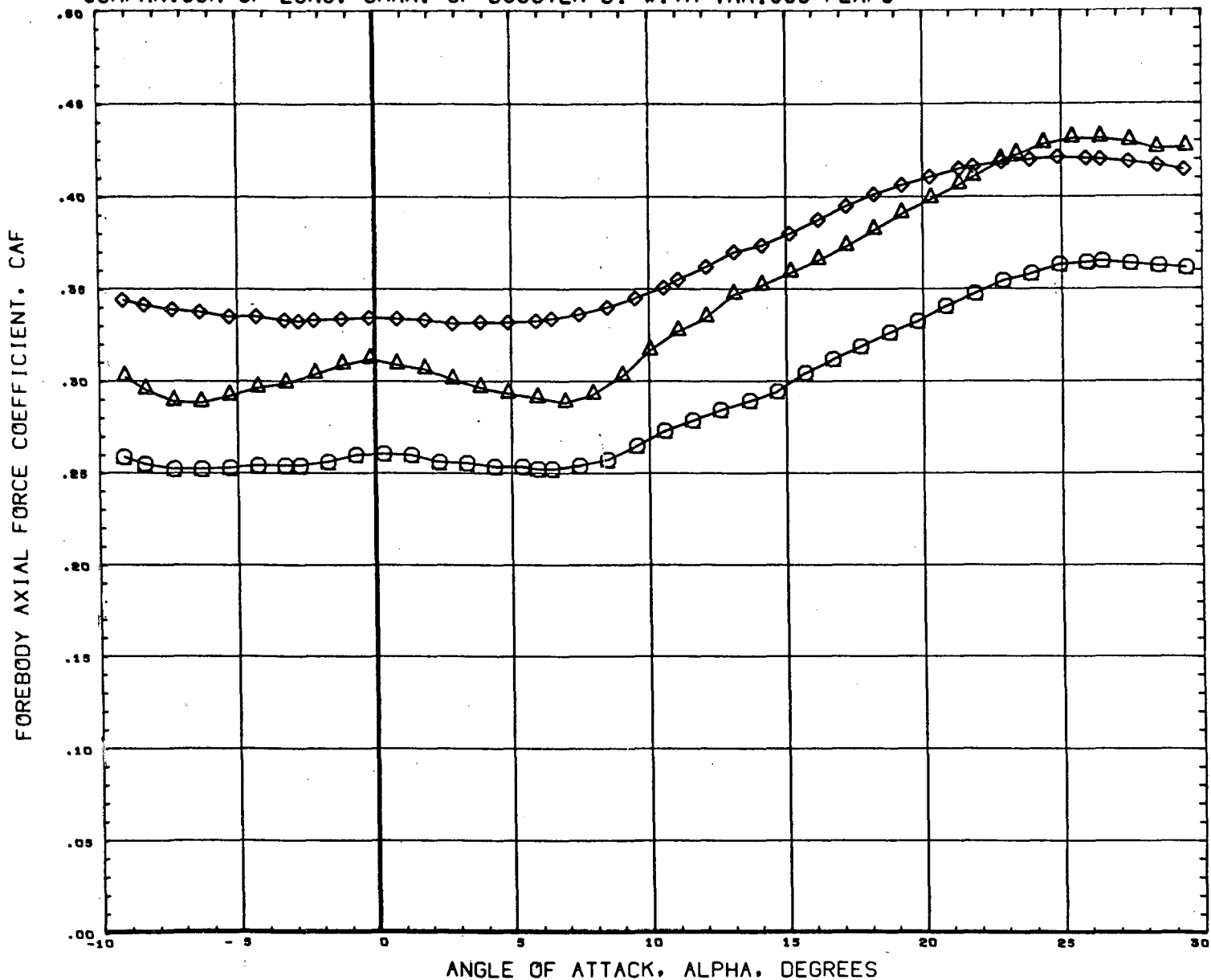
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ. FT.
LREF	609.9004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 600

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) Δ	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) \diamond	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) \circ	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

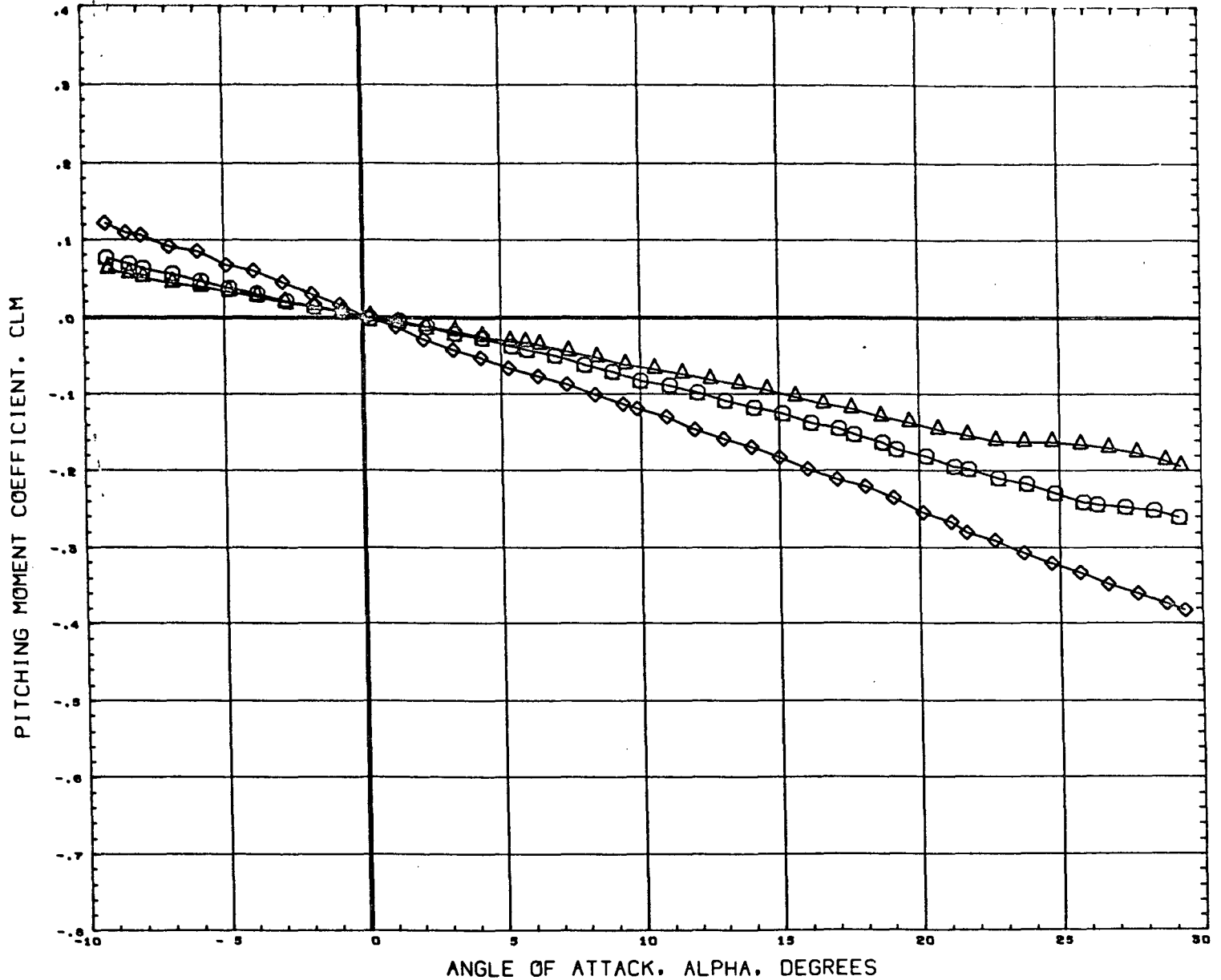
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

4.47

PAGE 601

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

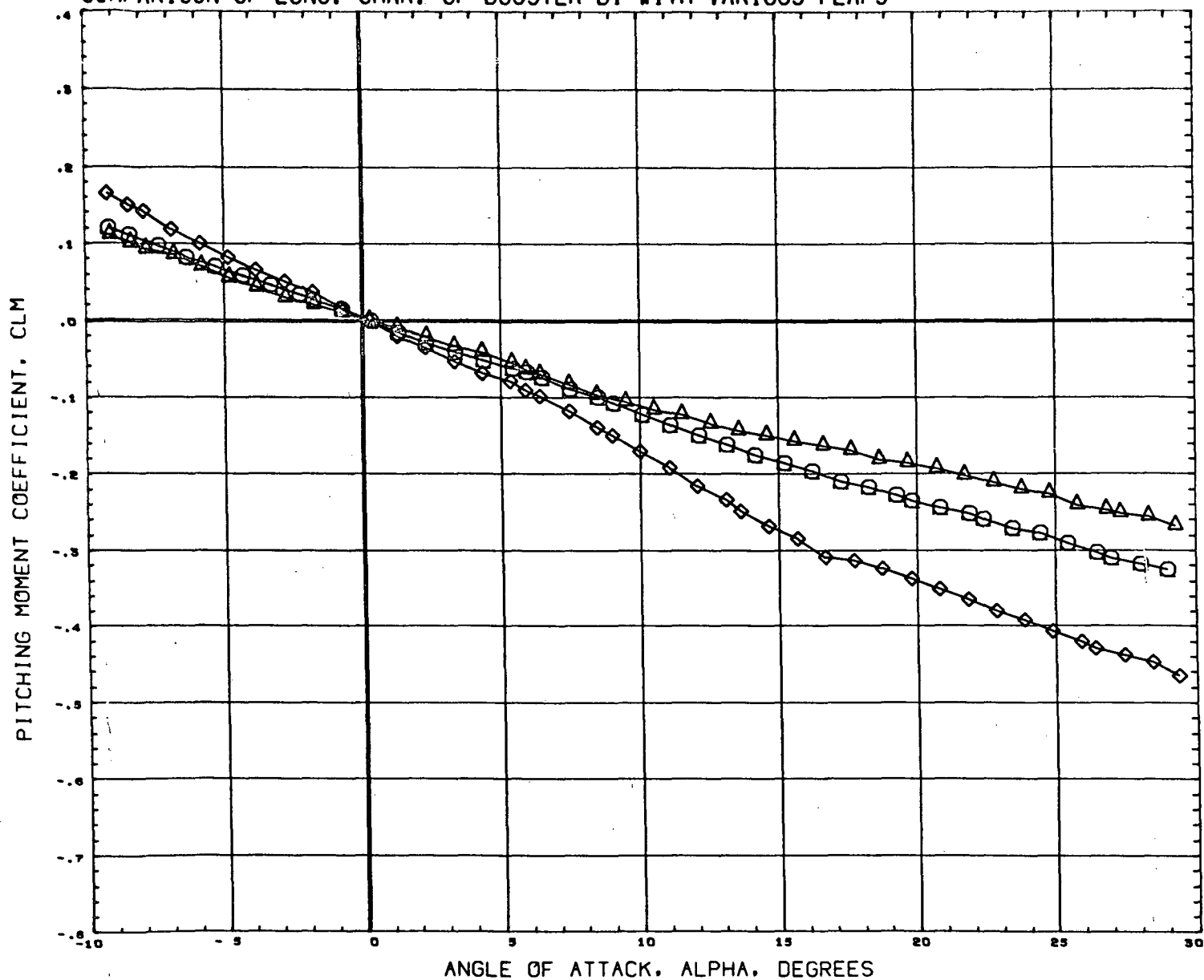
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 602

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

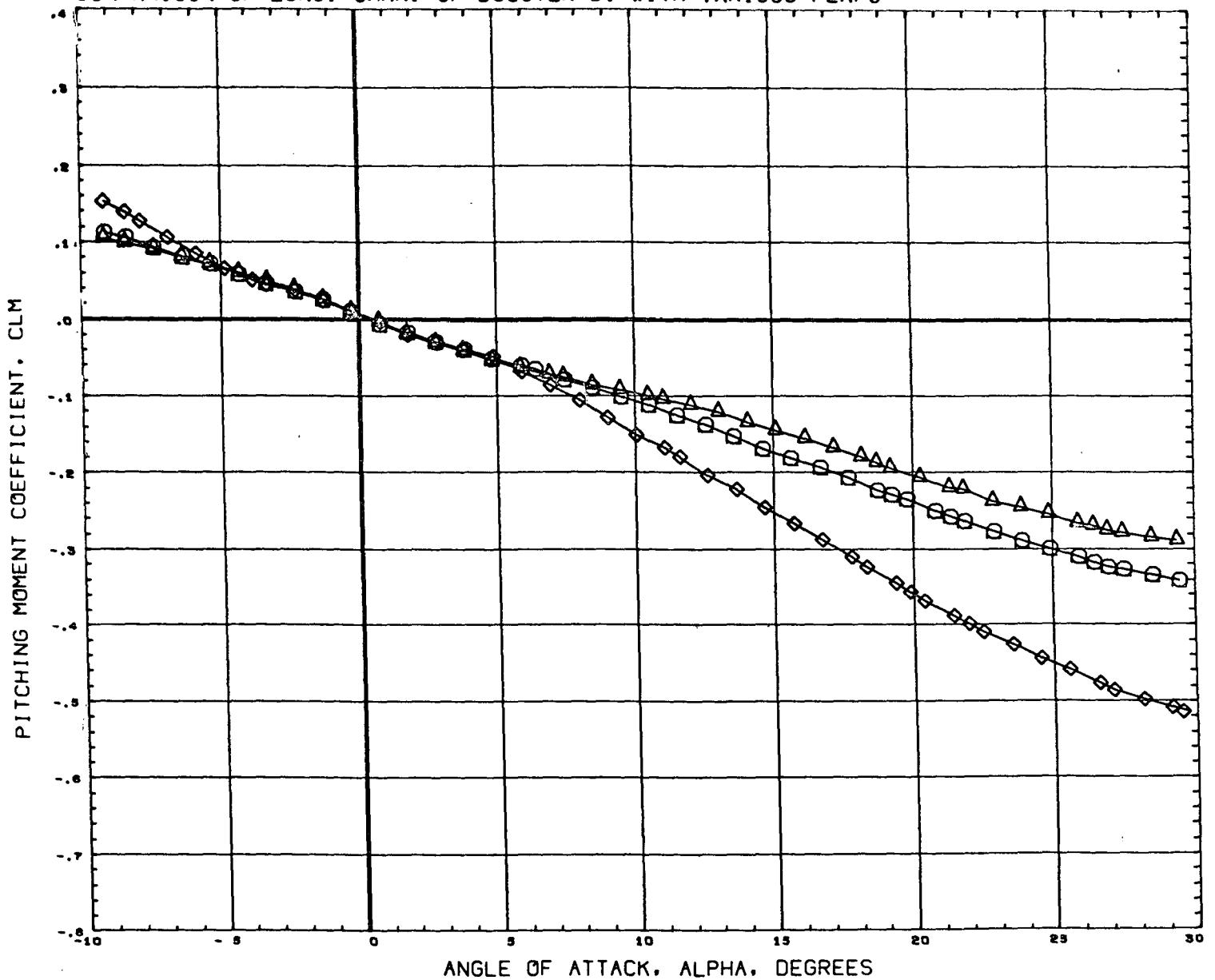
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 603

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

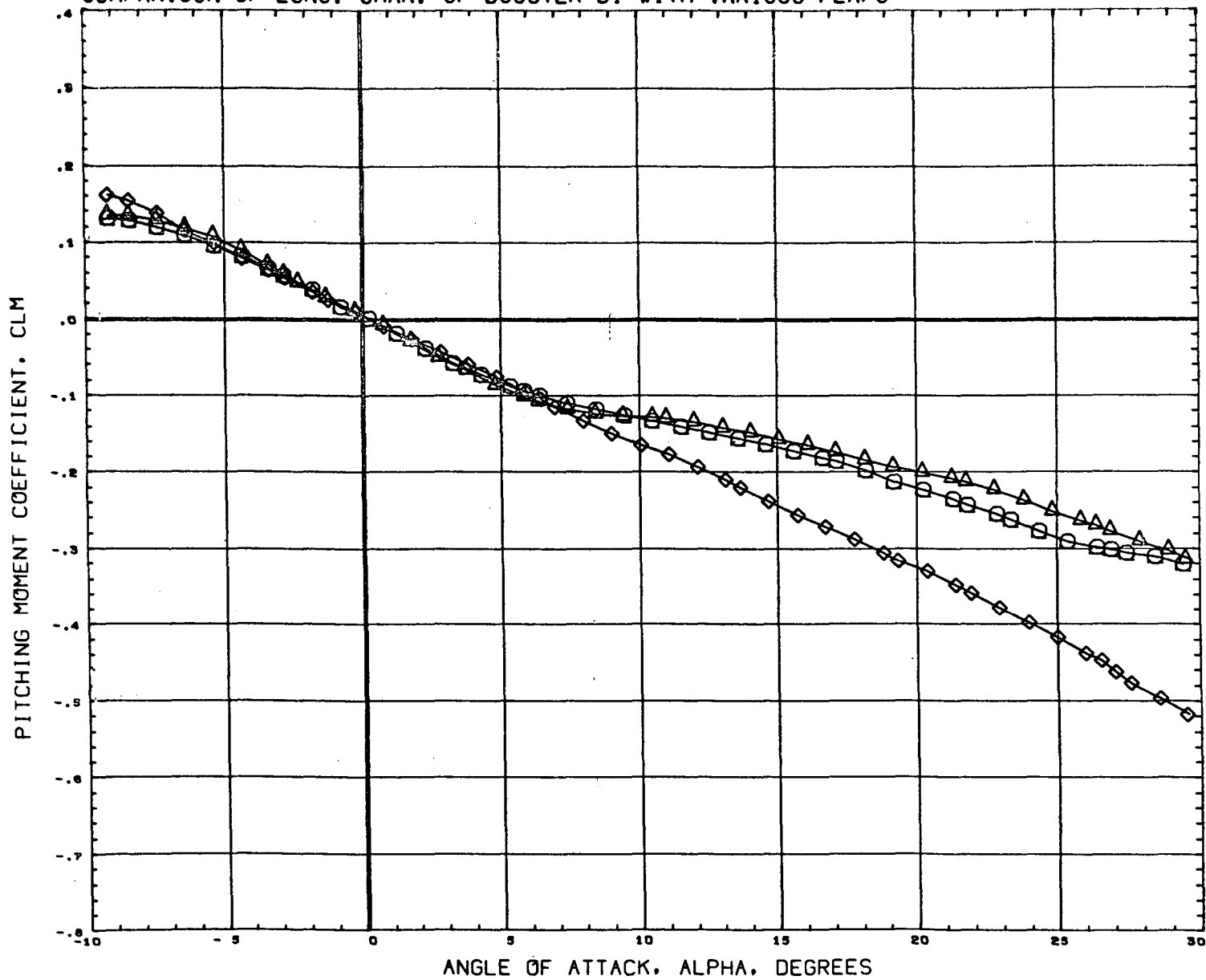
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 604

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

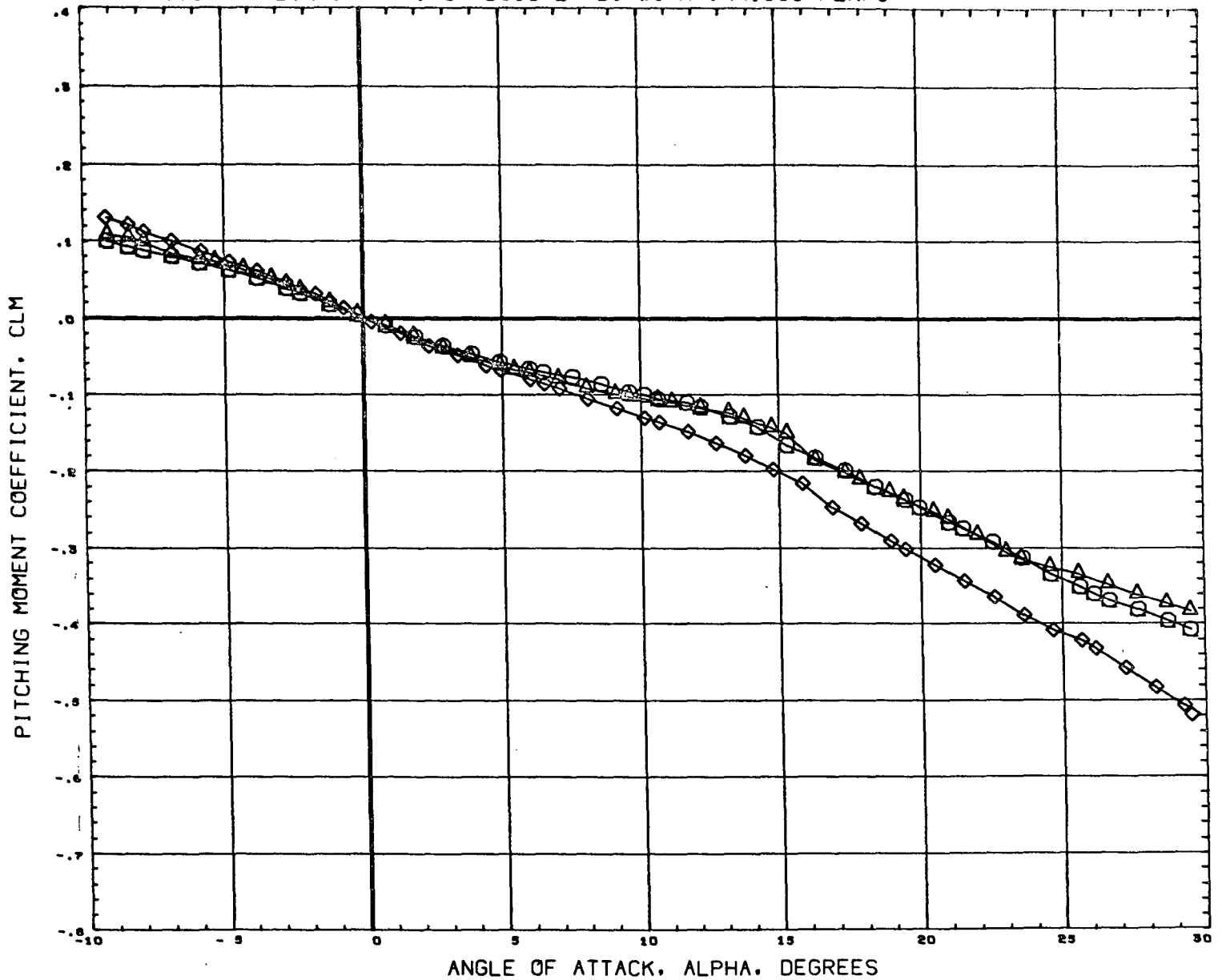
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.51

PAGE 605

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(C07811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(C07812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(C07808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

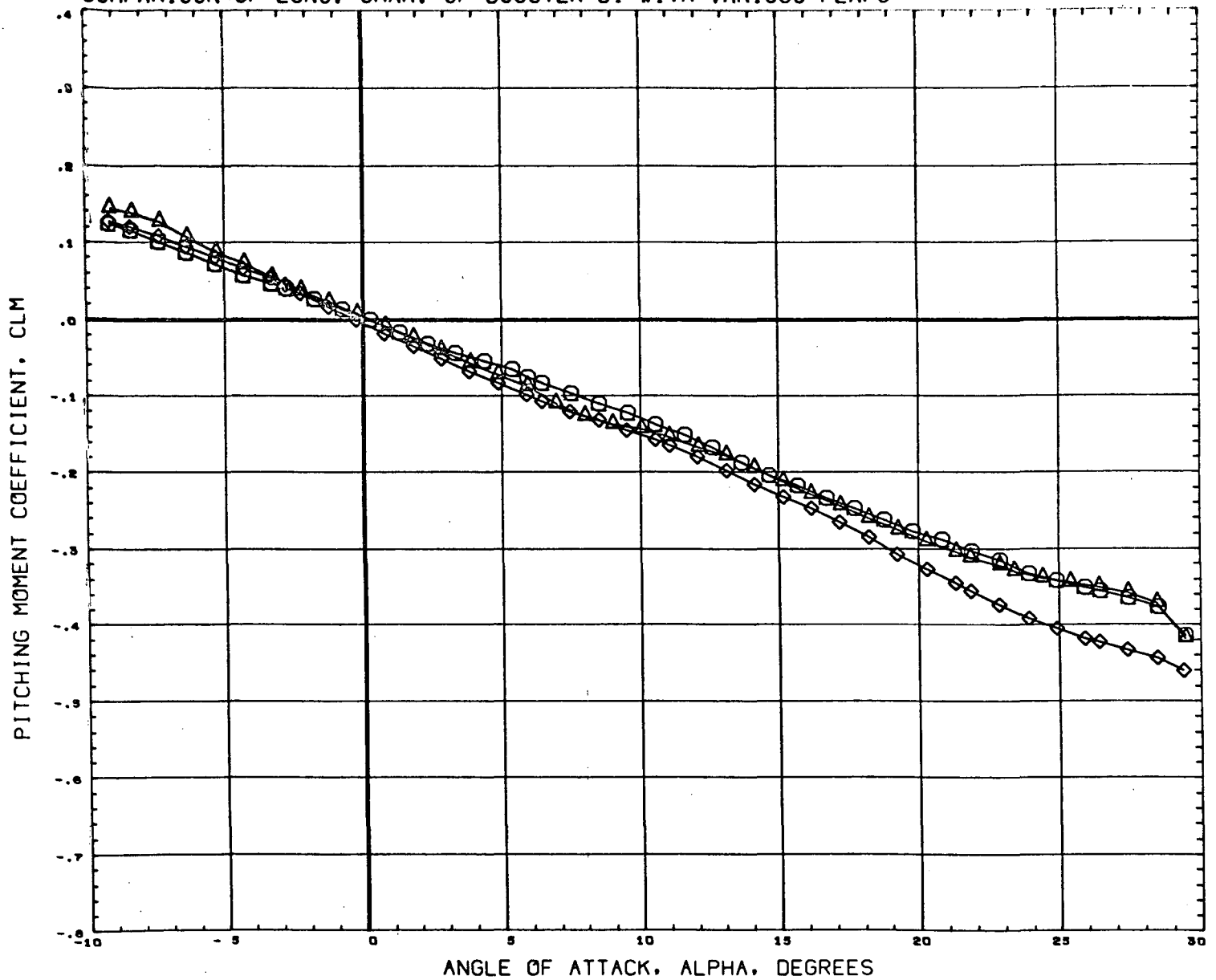
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 606

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

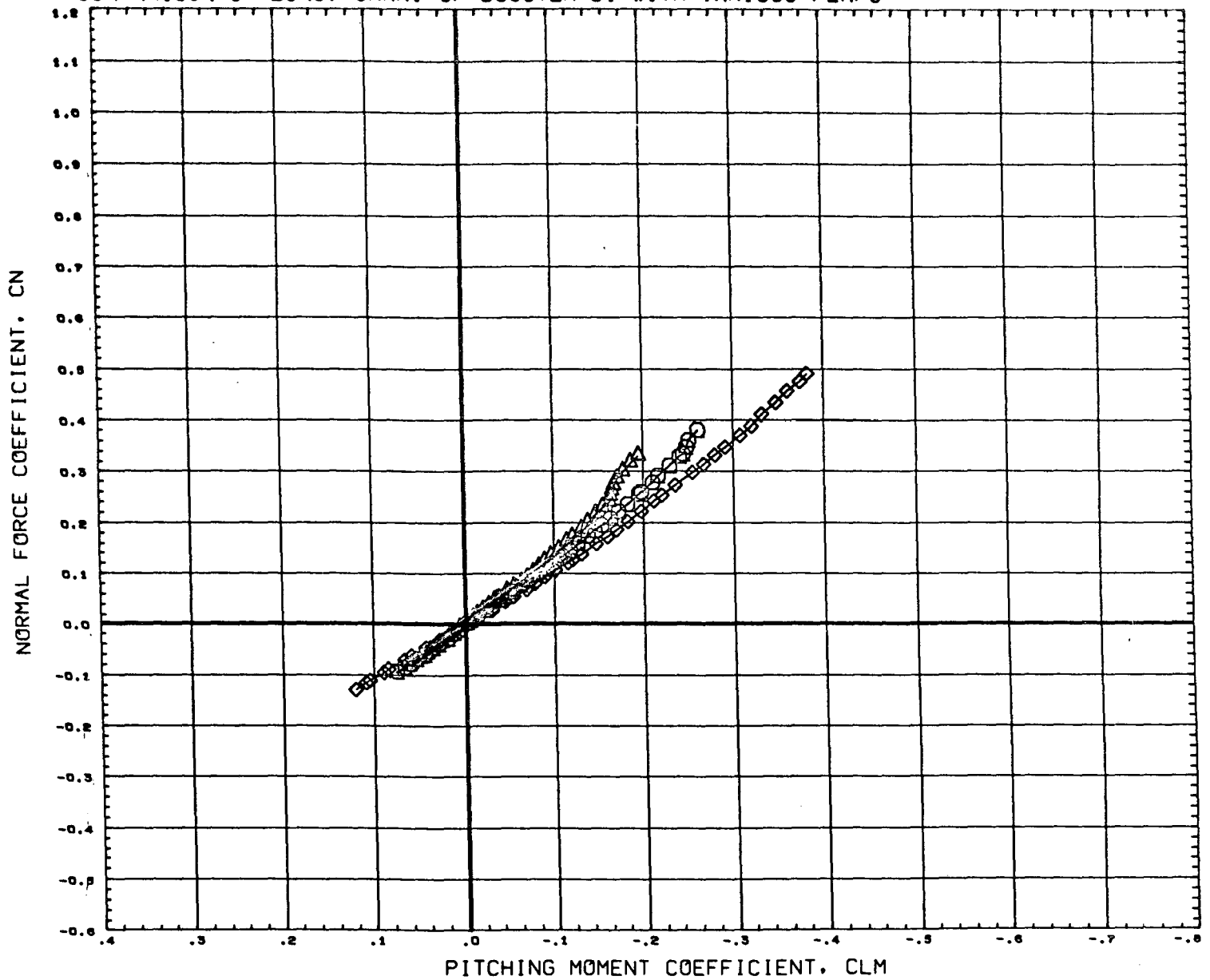
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 607

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7611)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7612)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7608)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

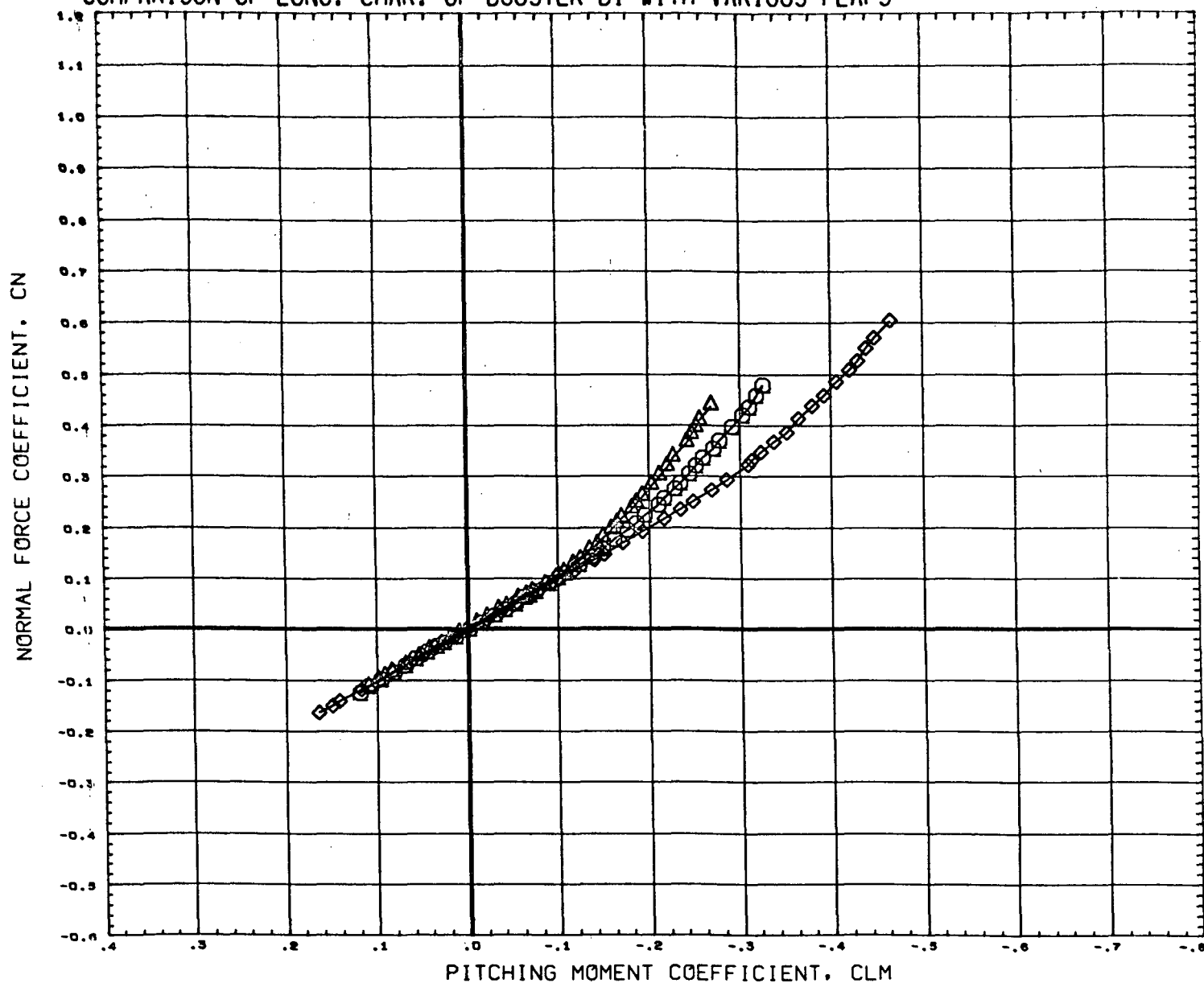
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 608

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

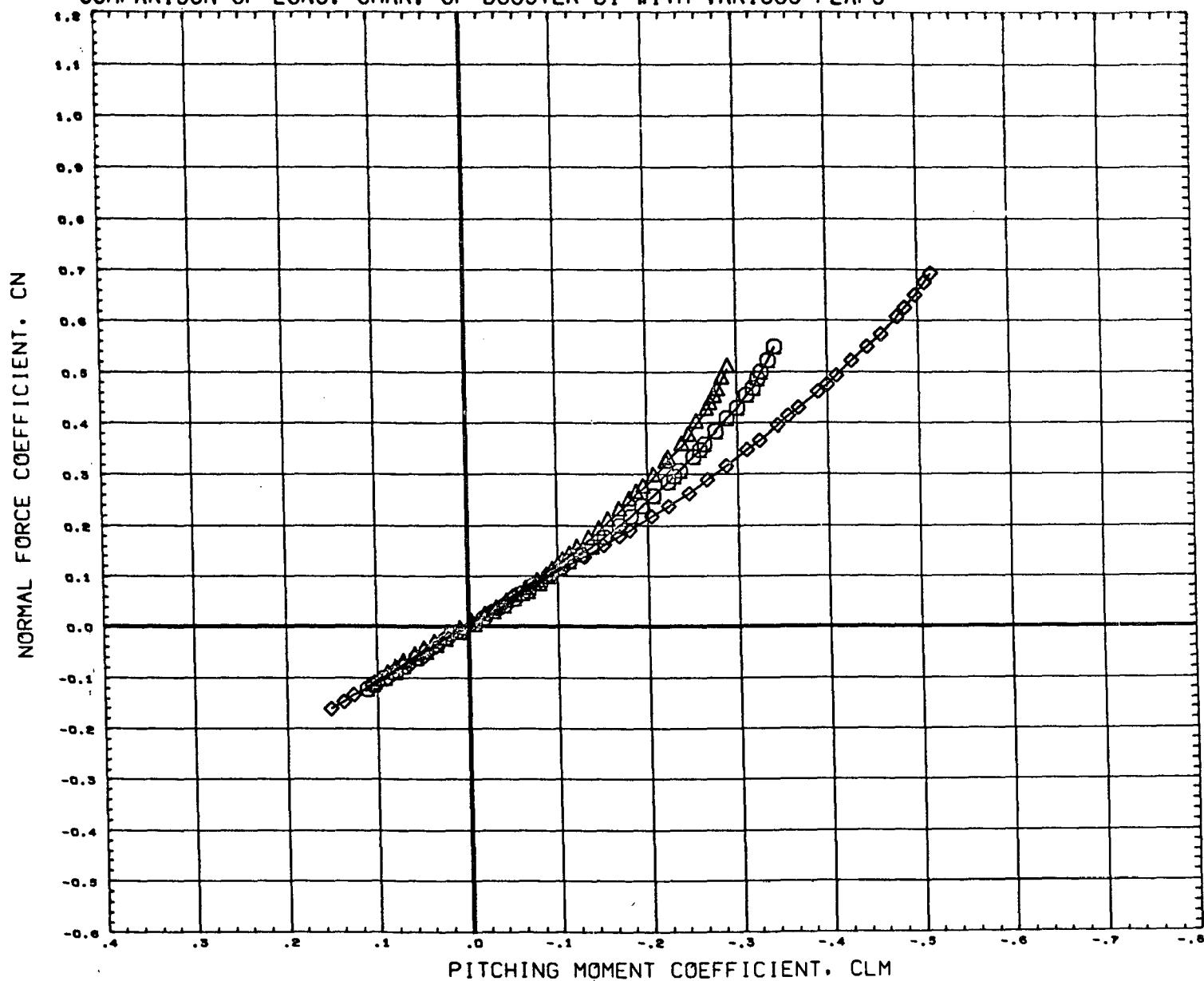
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 609

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

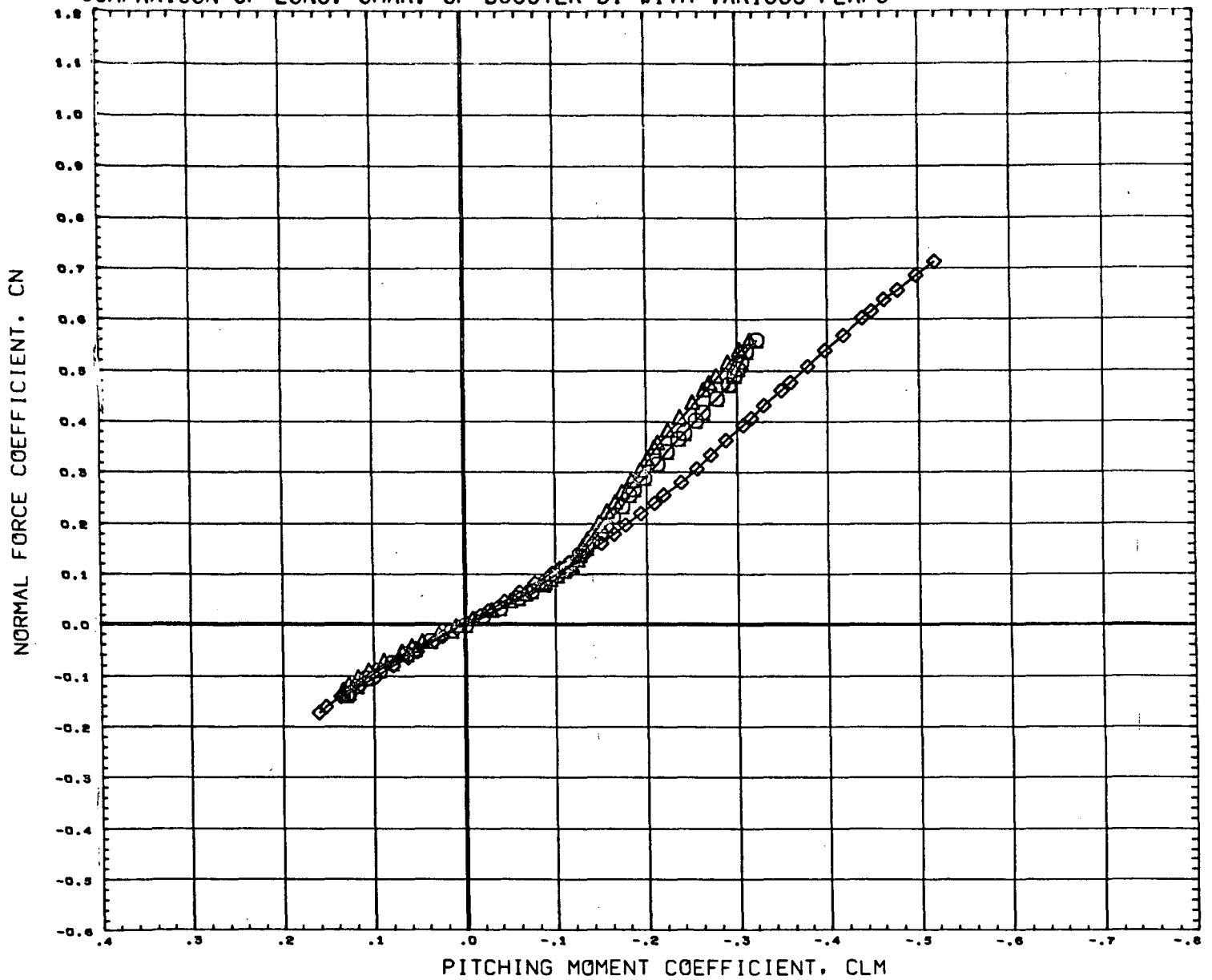
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.09

PAGE 610

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

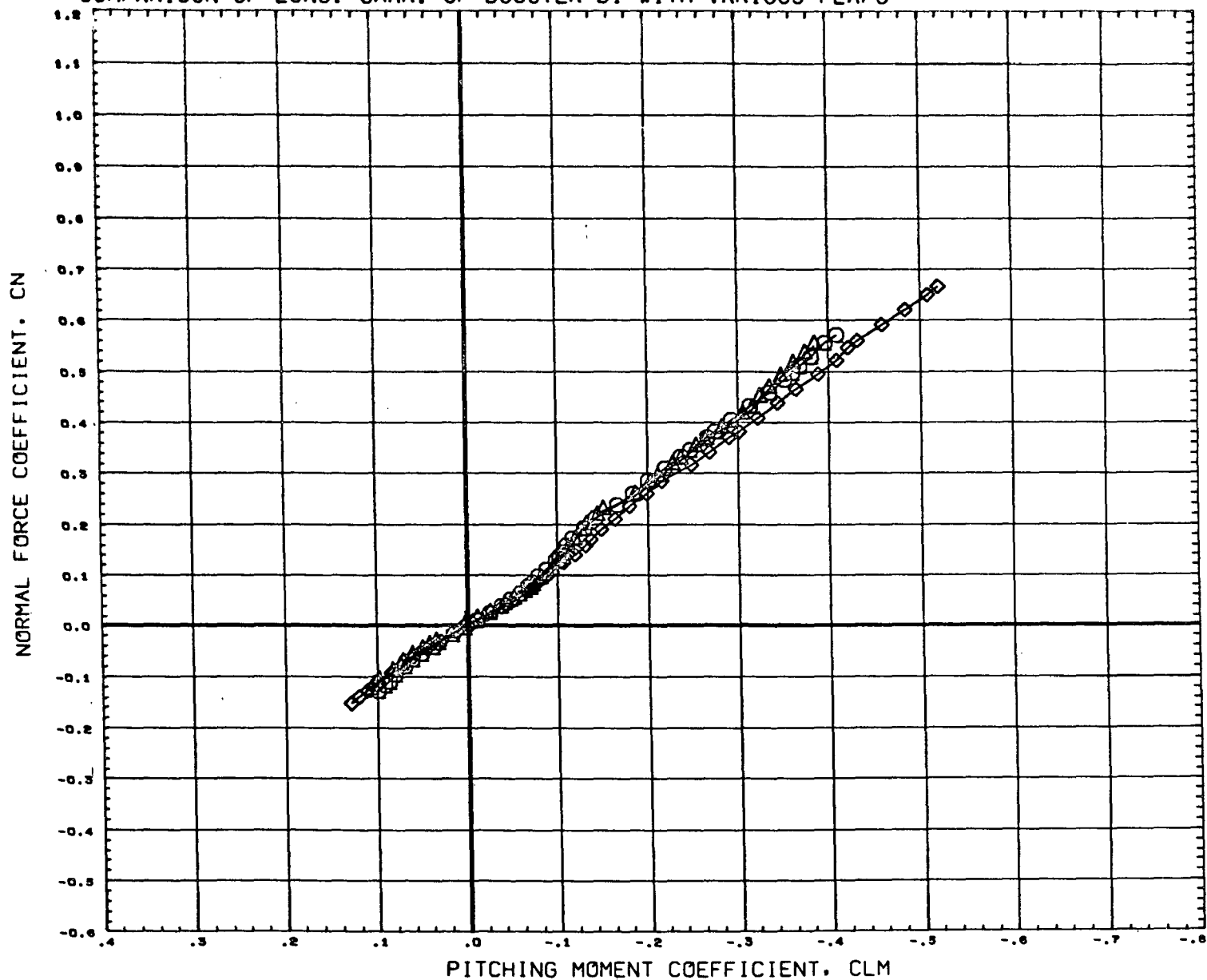
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRF	731.0004	IN.
YMRF	0.0000	IN.
ZMRF	0.0000	IN.
SCALE	0.0060	SCALE

MACH

1.51

PAGE 611

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

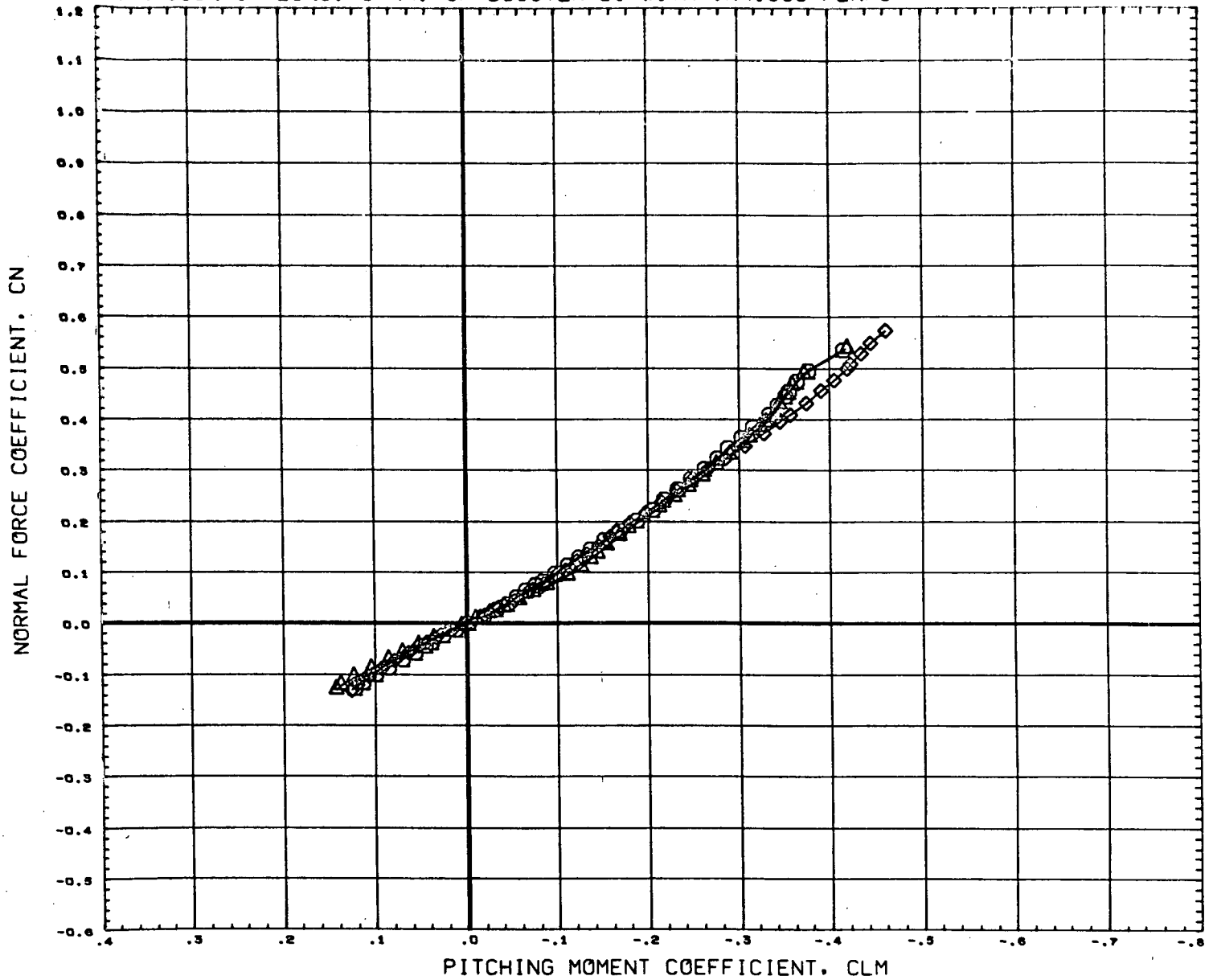
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 612

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

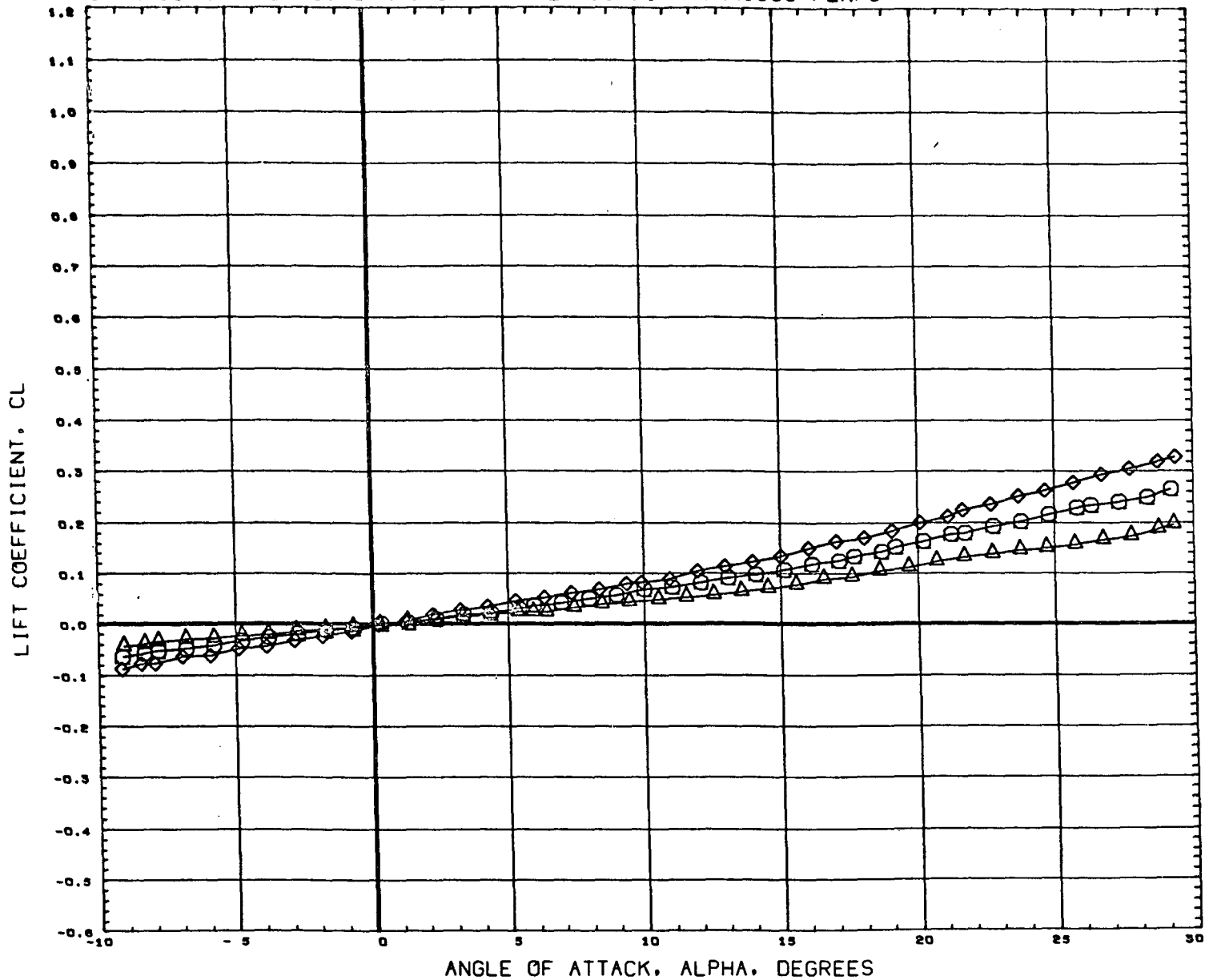
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 613

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

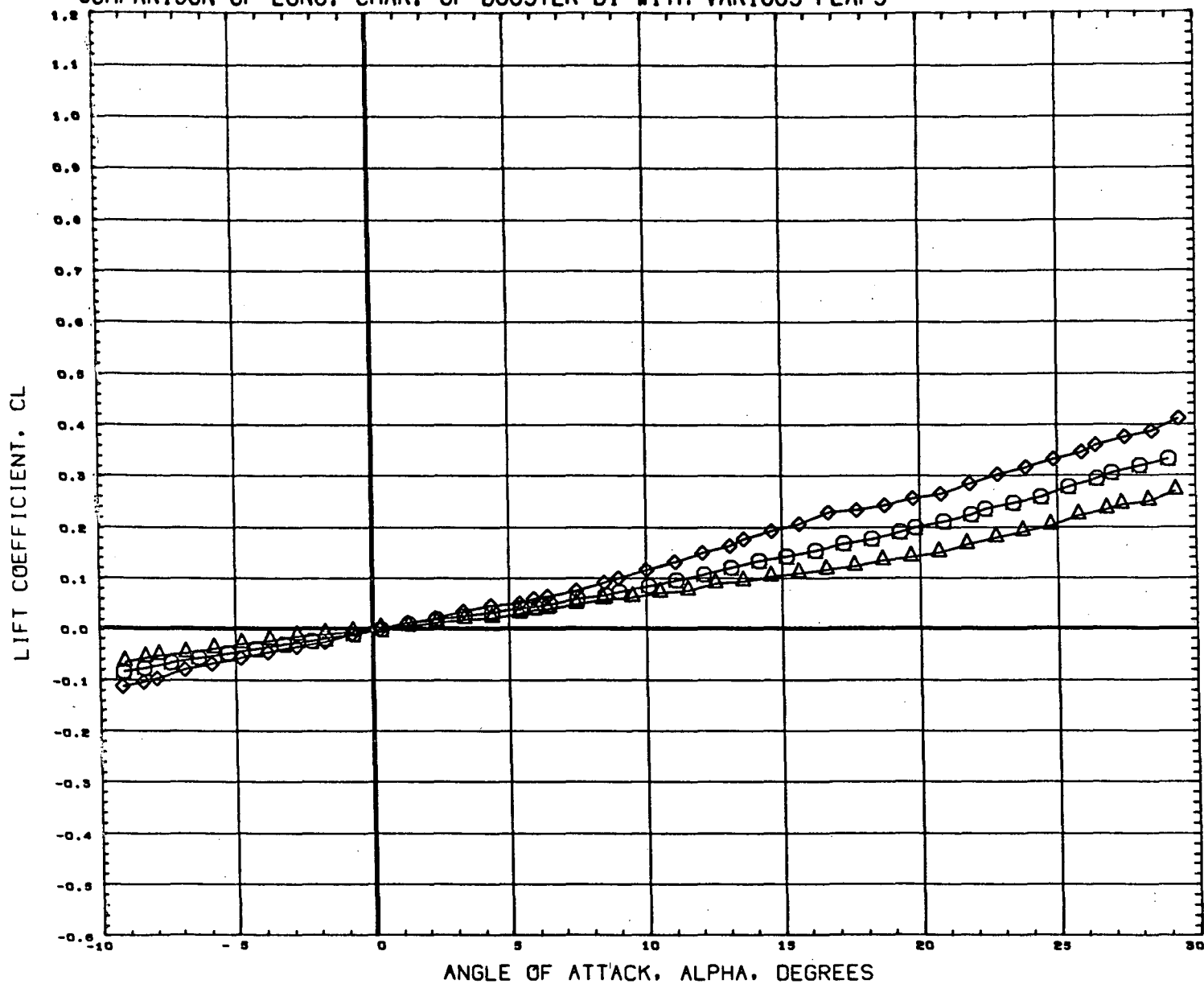
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 614

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

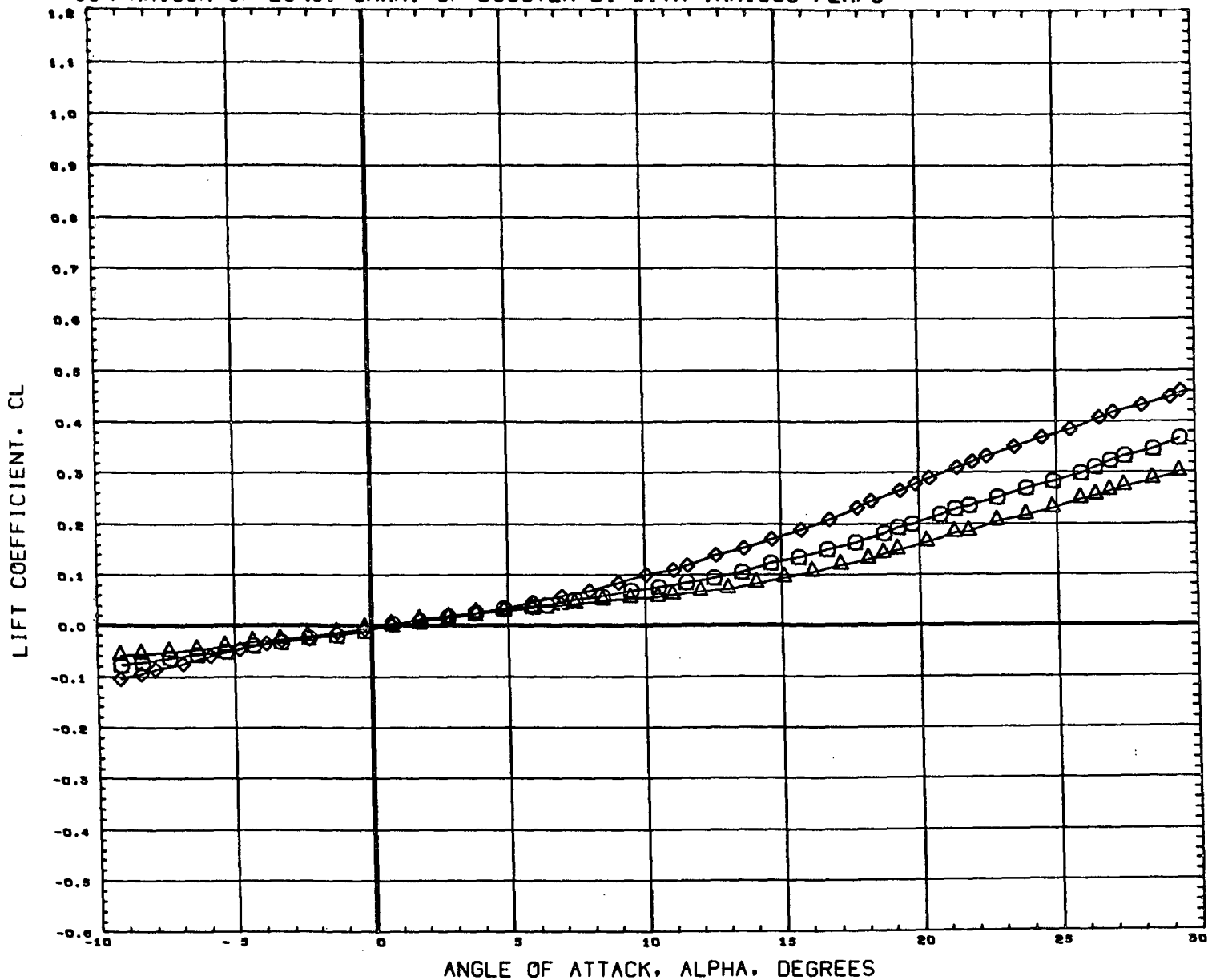
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.5040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 615

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

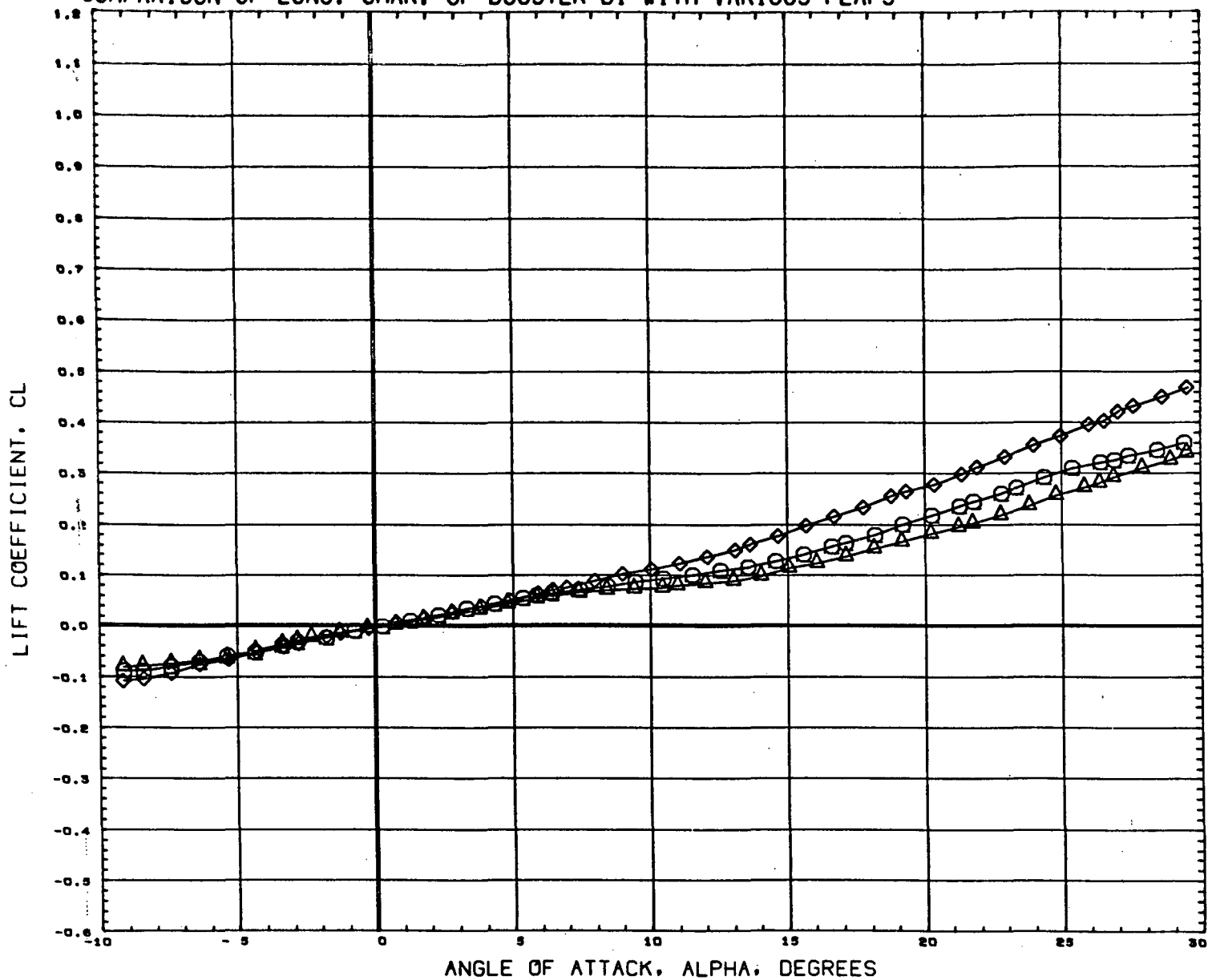
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	751.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 616

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

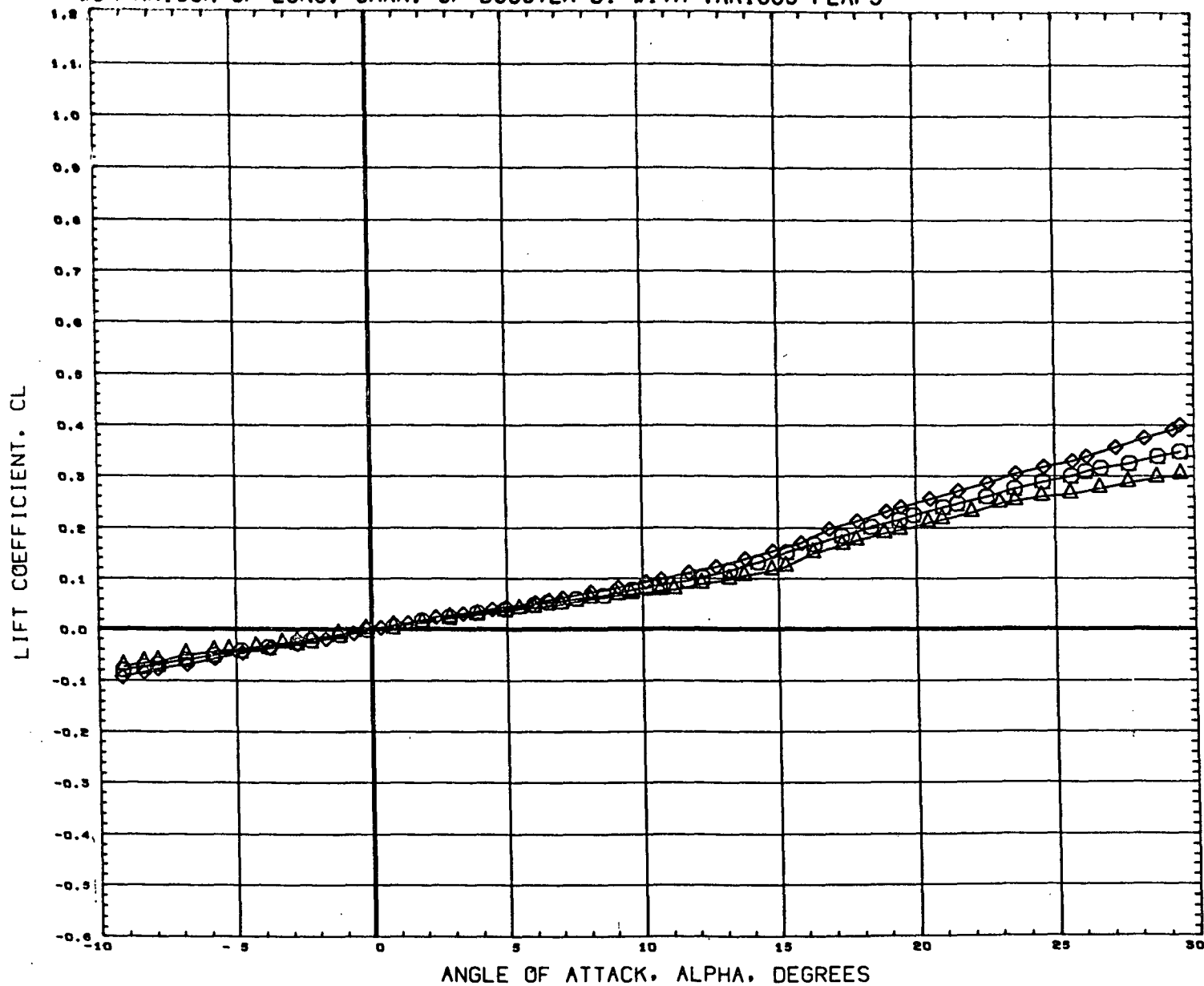
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 617

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



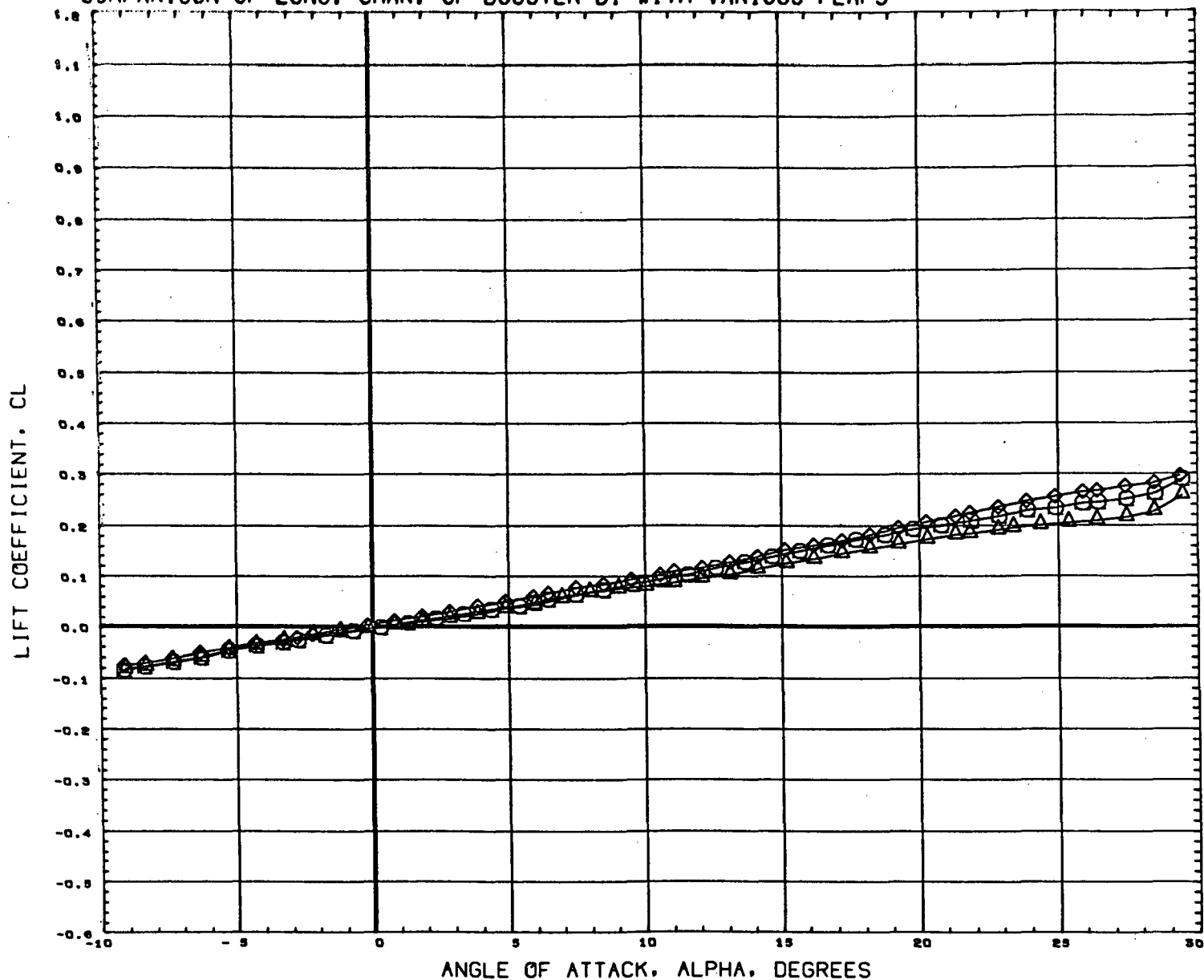
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLAPS
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6	0.000	75.000
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7	0.000	75.000
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2	0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 618

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET/SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7806) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

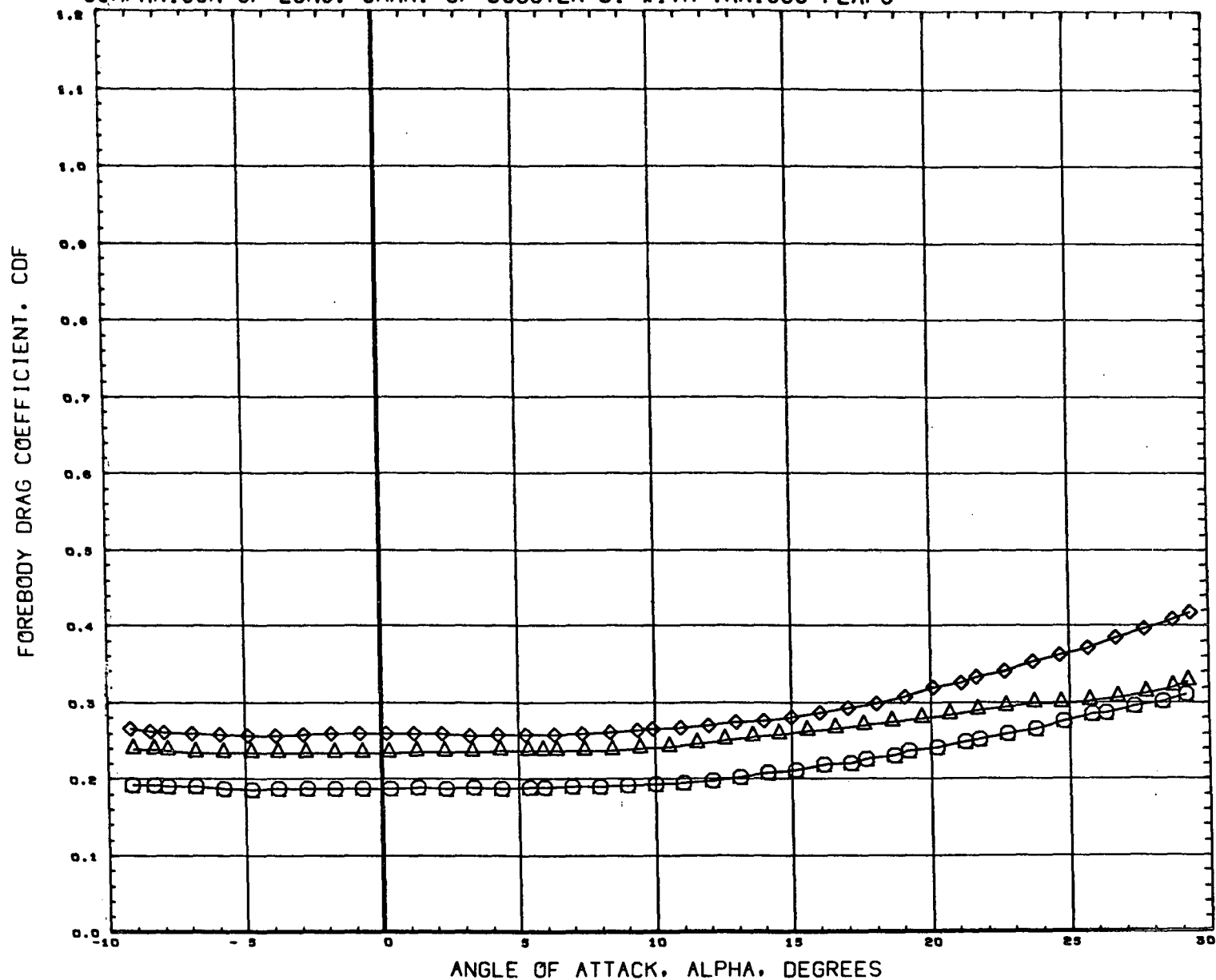
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 619

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

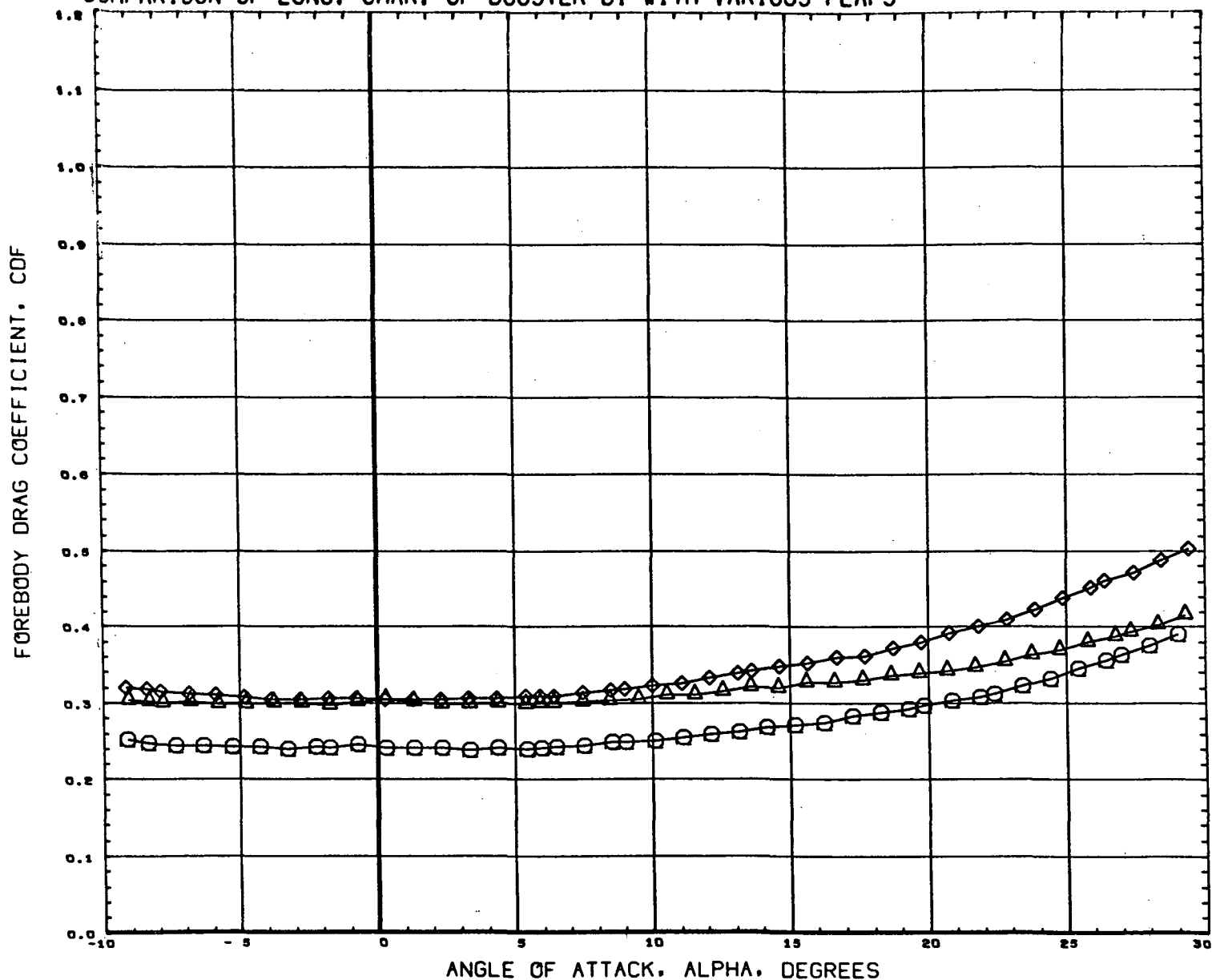
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

PAGE 620

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7811) \bigcirc MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6

(CD7812) \triangle MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7

(CD7808) \diamond MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA FLAPS

0.000 75.000

0.000 75.000

0.000 75.000

REFERENCE INFORMATION

SREF 3155.3040 SQ. FT.

LREF 609.5004 IN.

BREF 662.0004 IN.

XMRP 731.0004 IN.

YMRP 0.0000 IN.

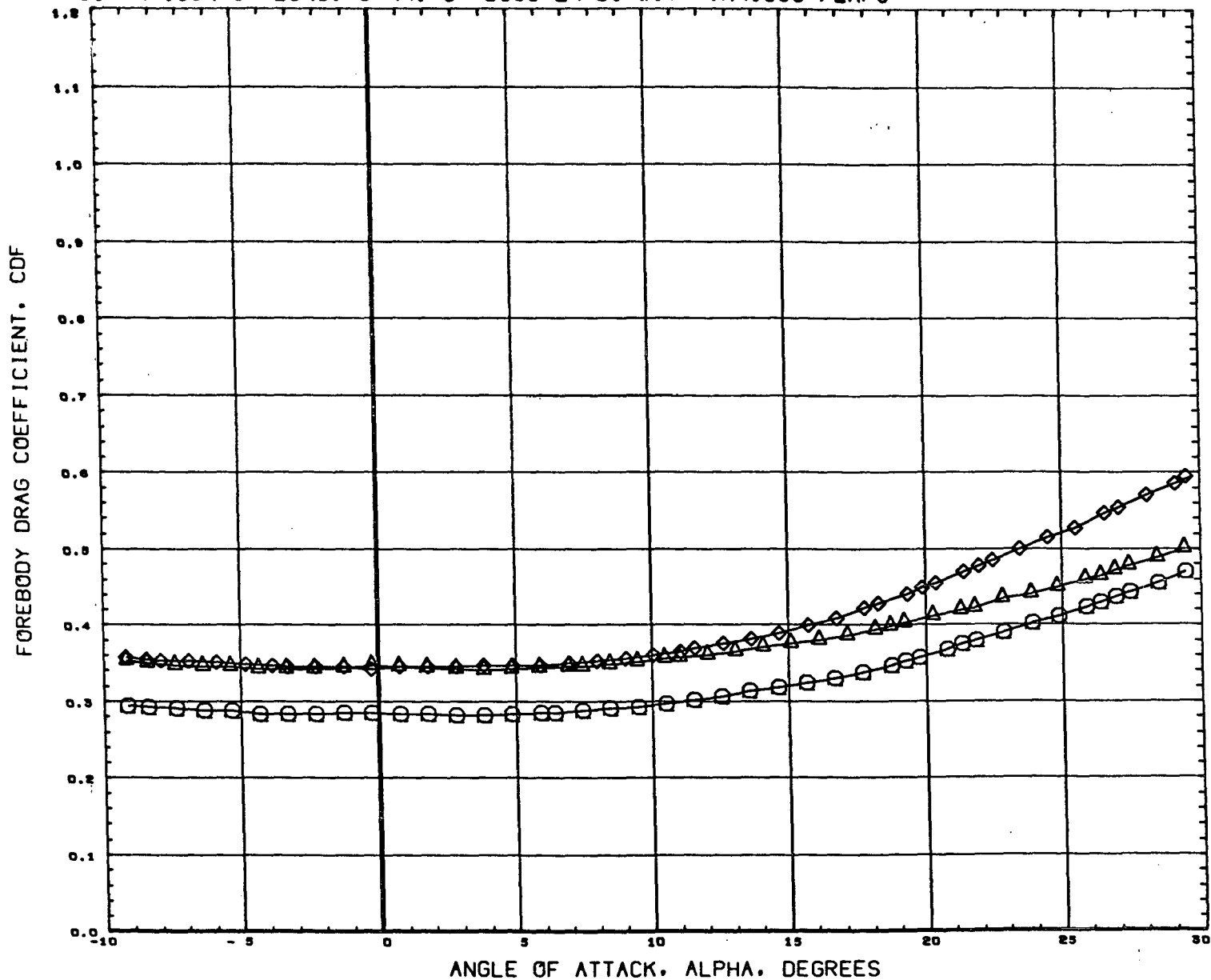
ZMRP 0.0000 IN.

SCALE 0.0060 SCALE

MACH .94

PAGE 621

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) □	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

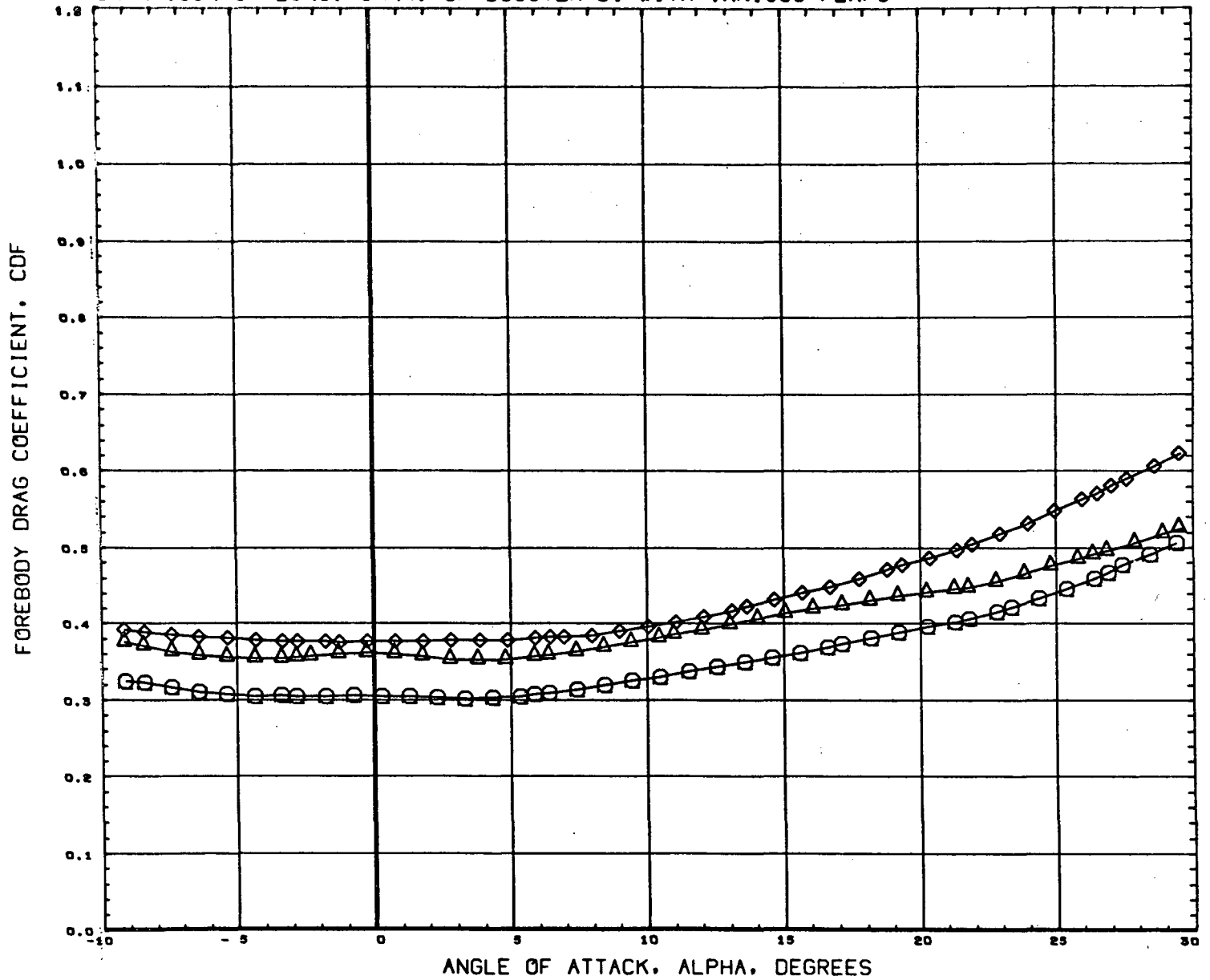
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 622

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7811) MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
 (CD7812) MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
 (CD7808) MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

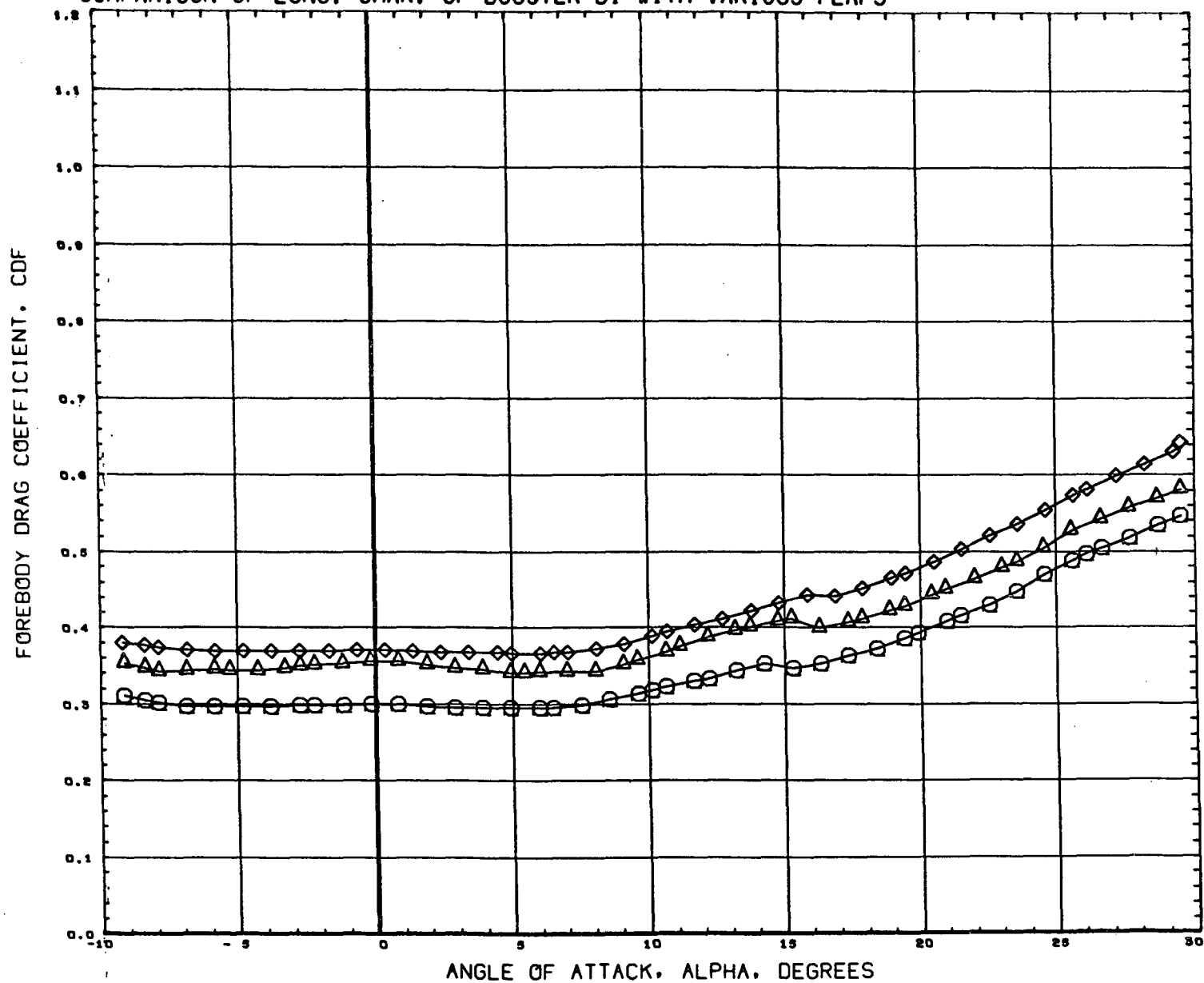
BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 75.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.5004 IN.
 BREF 862.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 1.51

PAGE 623

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL CONFIGURATION DESCRIPTION

(CD7611) \square MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
 (CD7612) \triangle MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
 (CD7608) \diamond MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

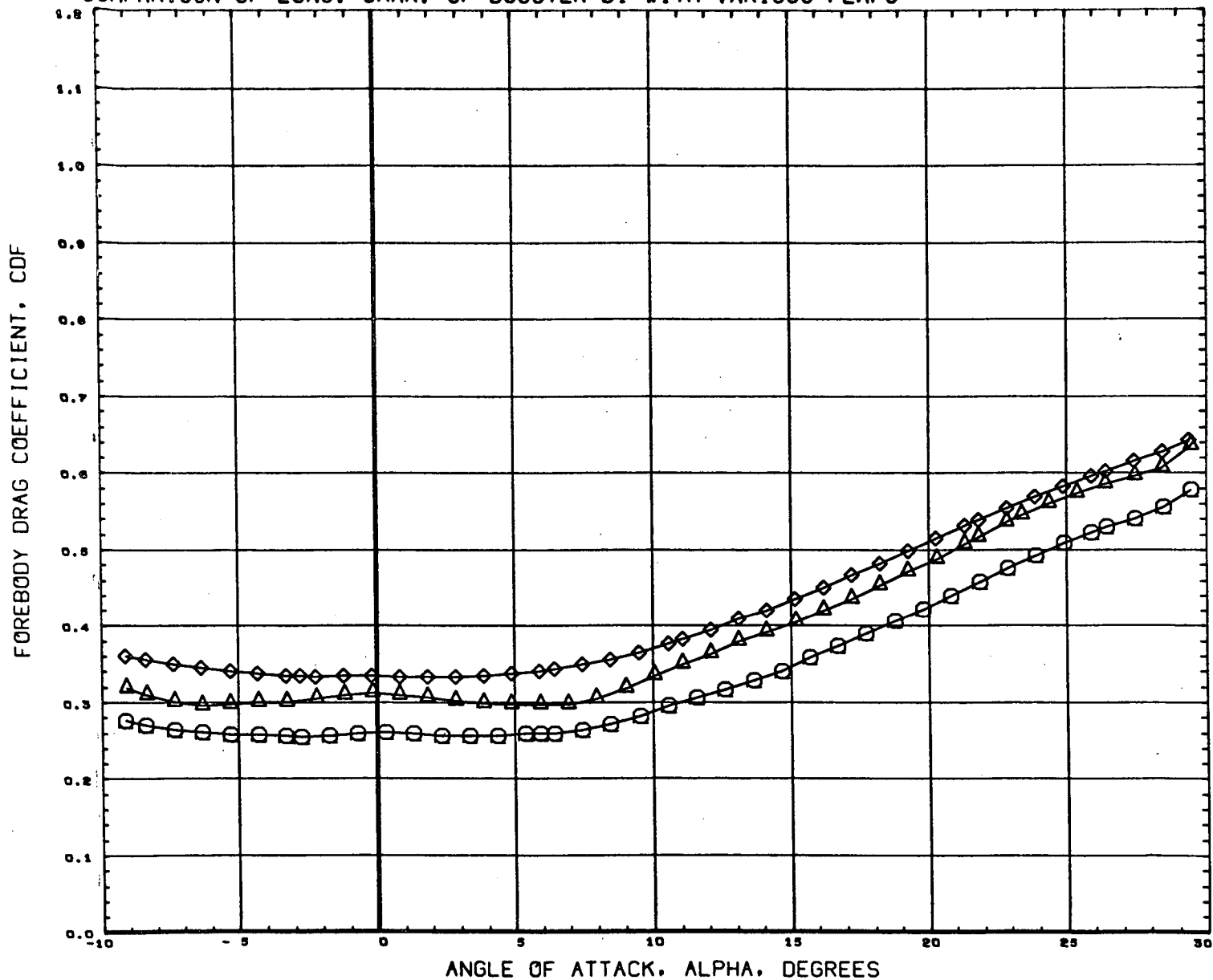
BETA FLAPS
 0.000 75.000
 0.000 75.000
 0.000 75.000

REFERENCE INFORMATION
 SREF 3155.3040 SQ.FT.
 LREF 609.9004 IN.
 BREF 662.0004 IN.
 XMRP 731.0004 IN.
 YMRP 0.0000 IN.
 ZMRP 0.0000 IN.
 SCALE 0.0060 SCALE

MACH 2.50

PAGE 624

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

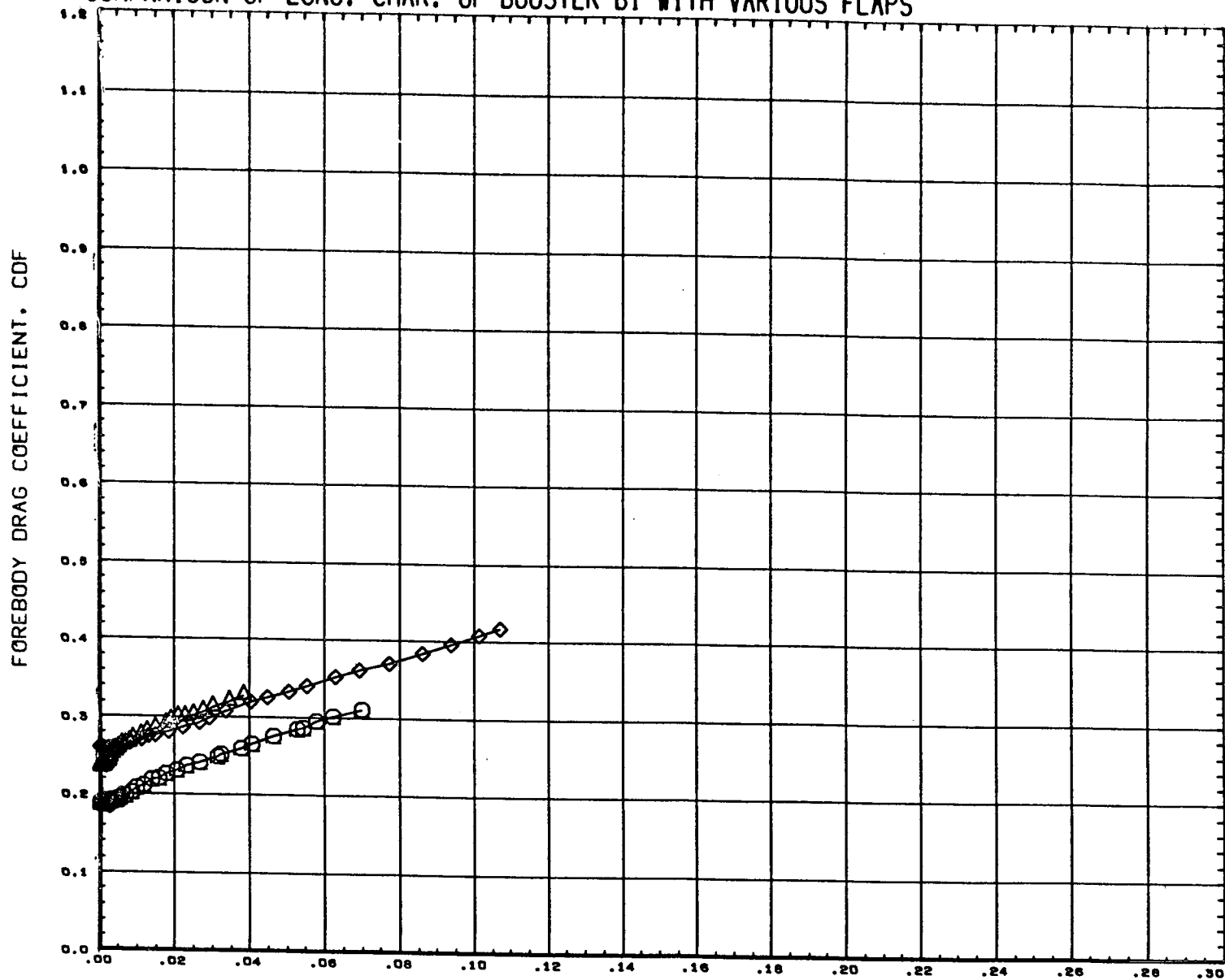
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 625

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



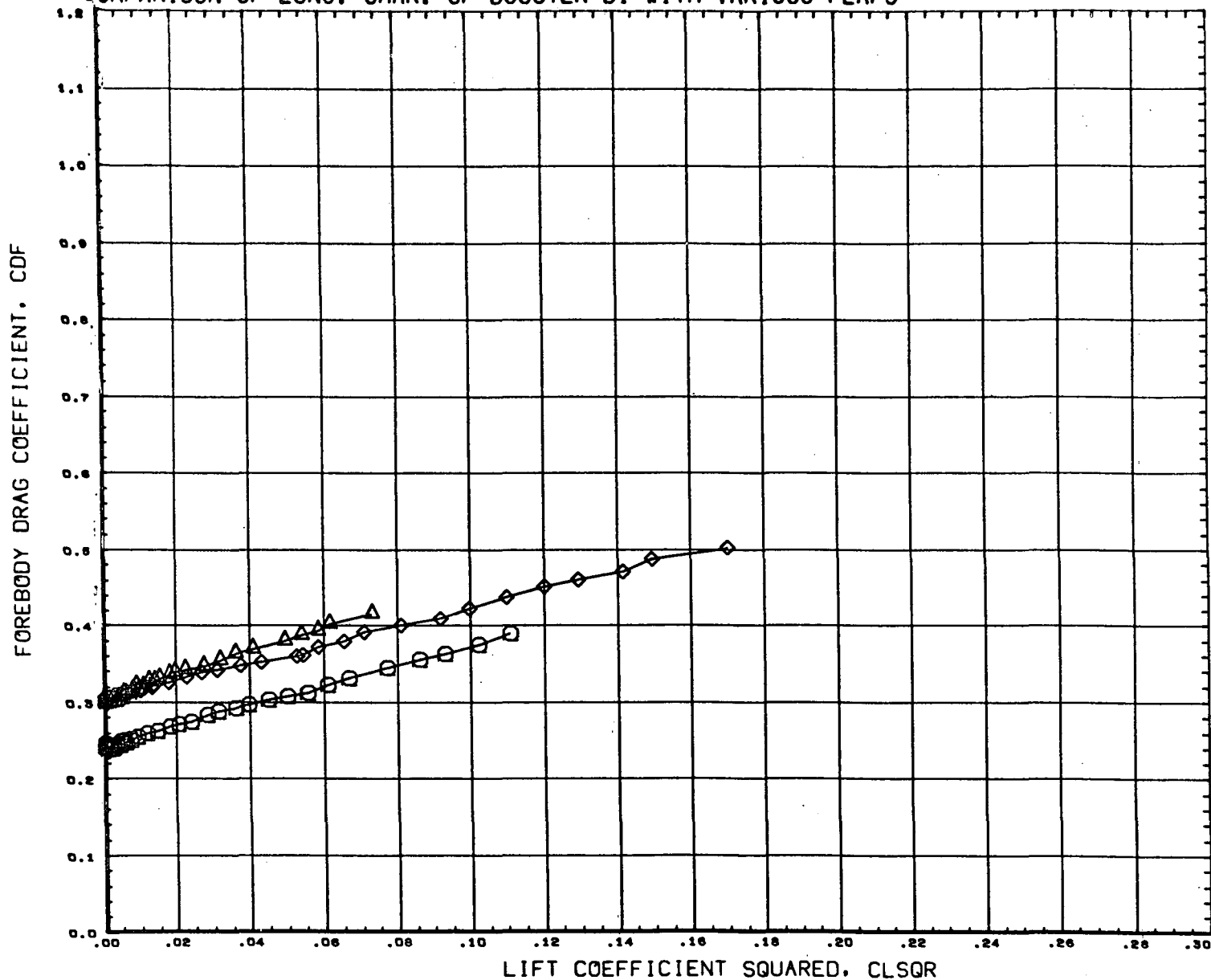
DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7809)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3159.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .65

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

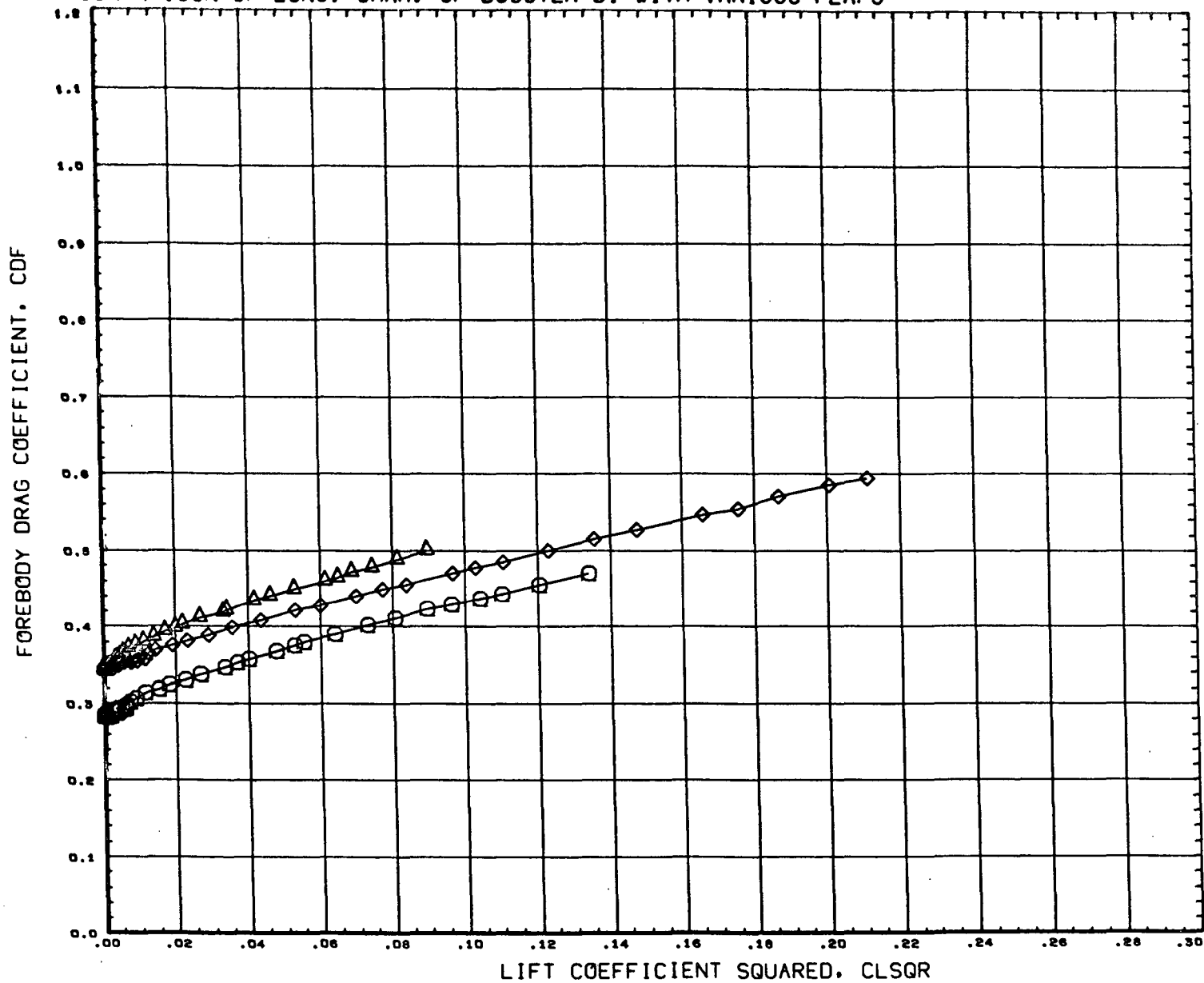
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 627

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.3004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

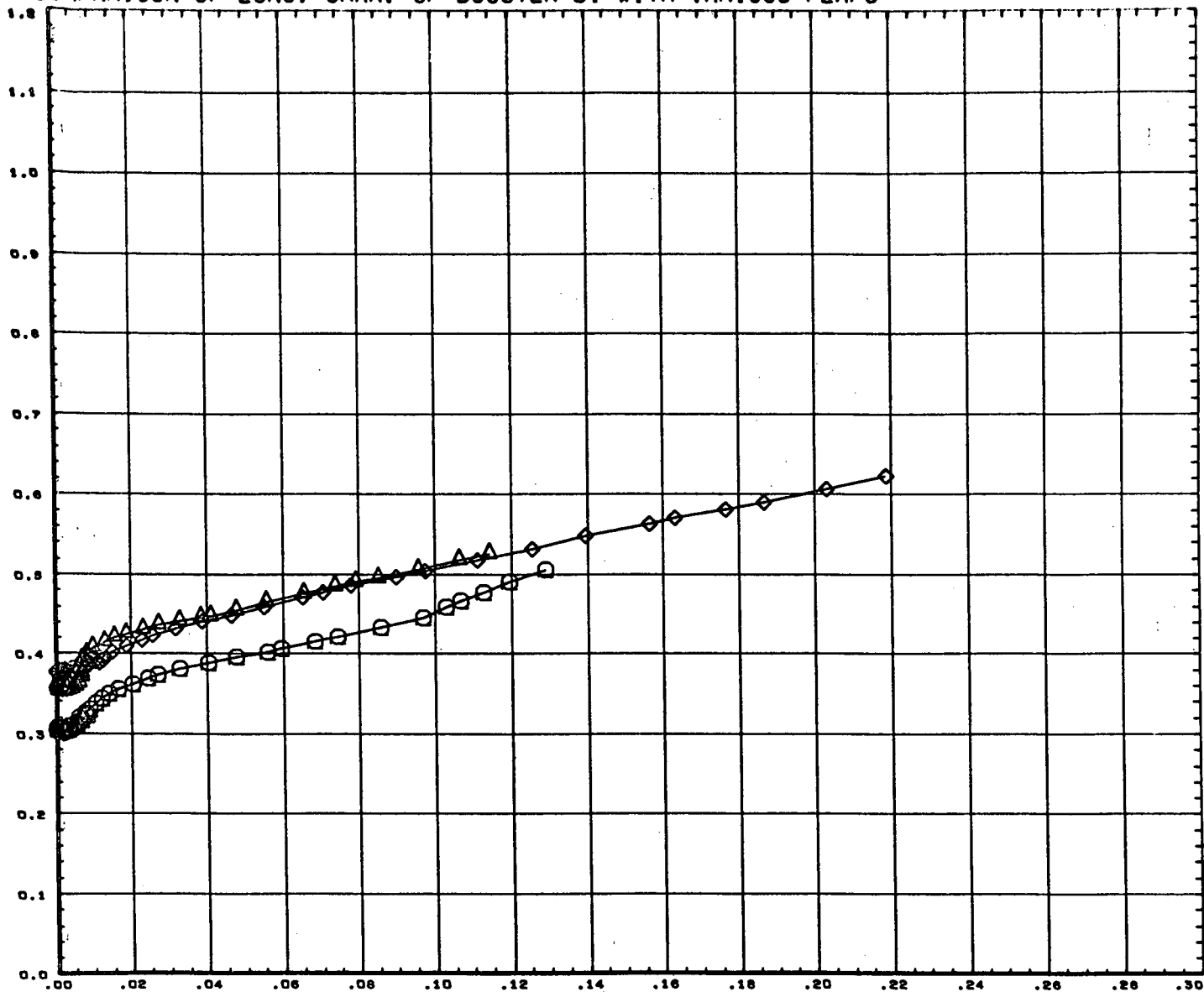
MACH

1.09

PAGE 628

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS

FOREBODY DRAG COEFFICIENT, CDF



LIFT COEFFICIENT SQUARED, CLSQ

DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

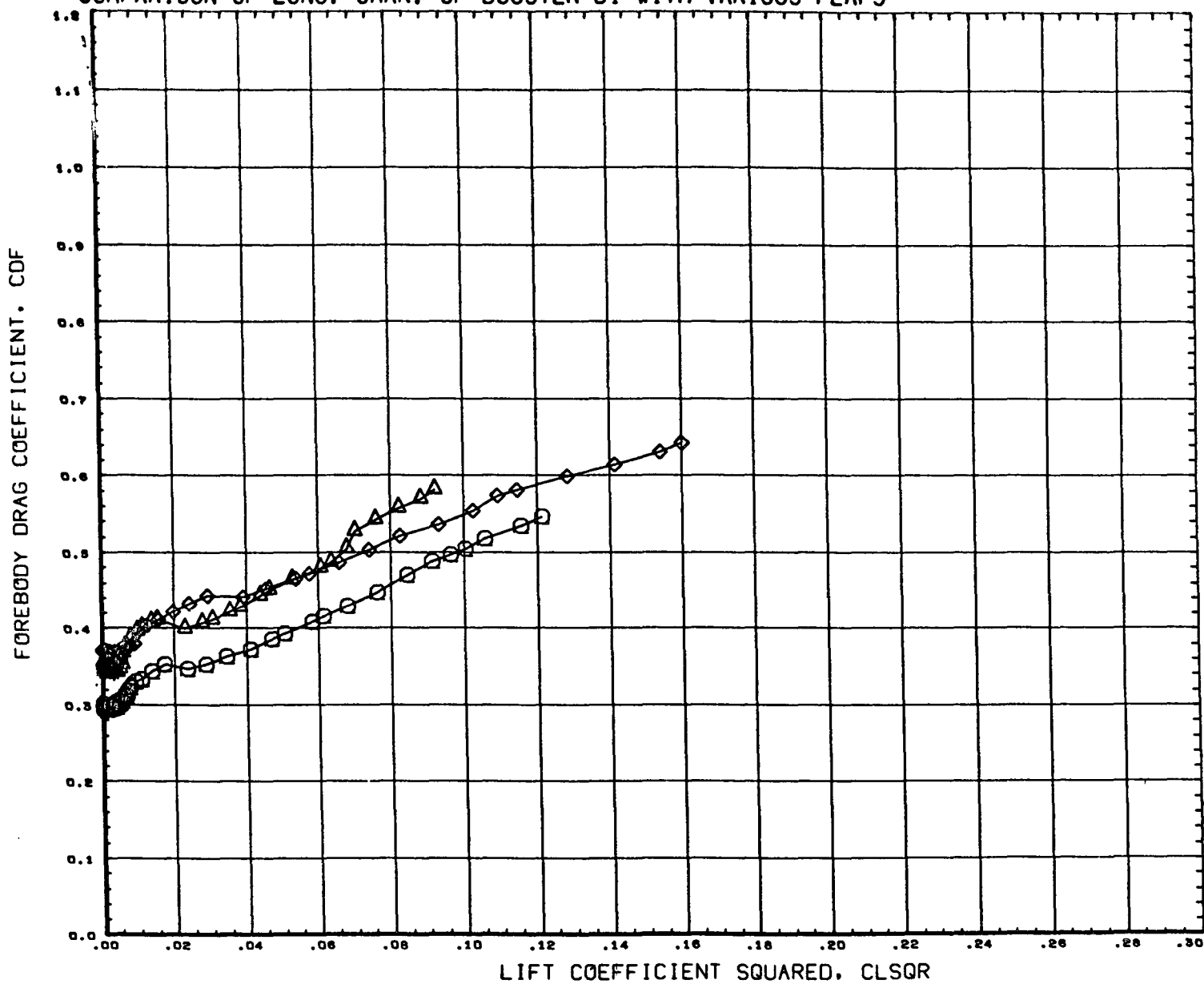
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XHRP	731.0004	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.51

PAGE 629

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811) ○	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812) △	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808) ◇	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

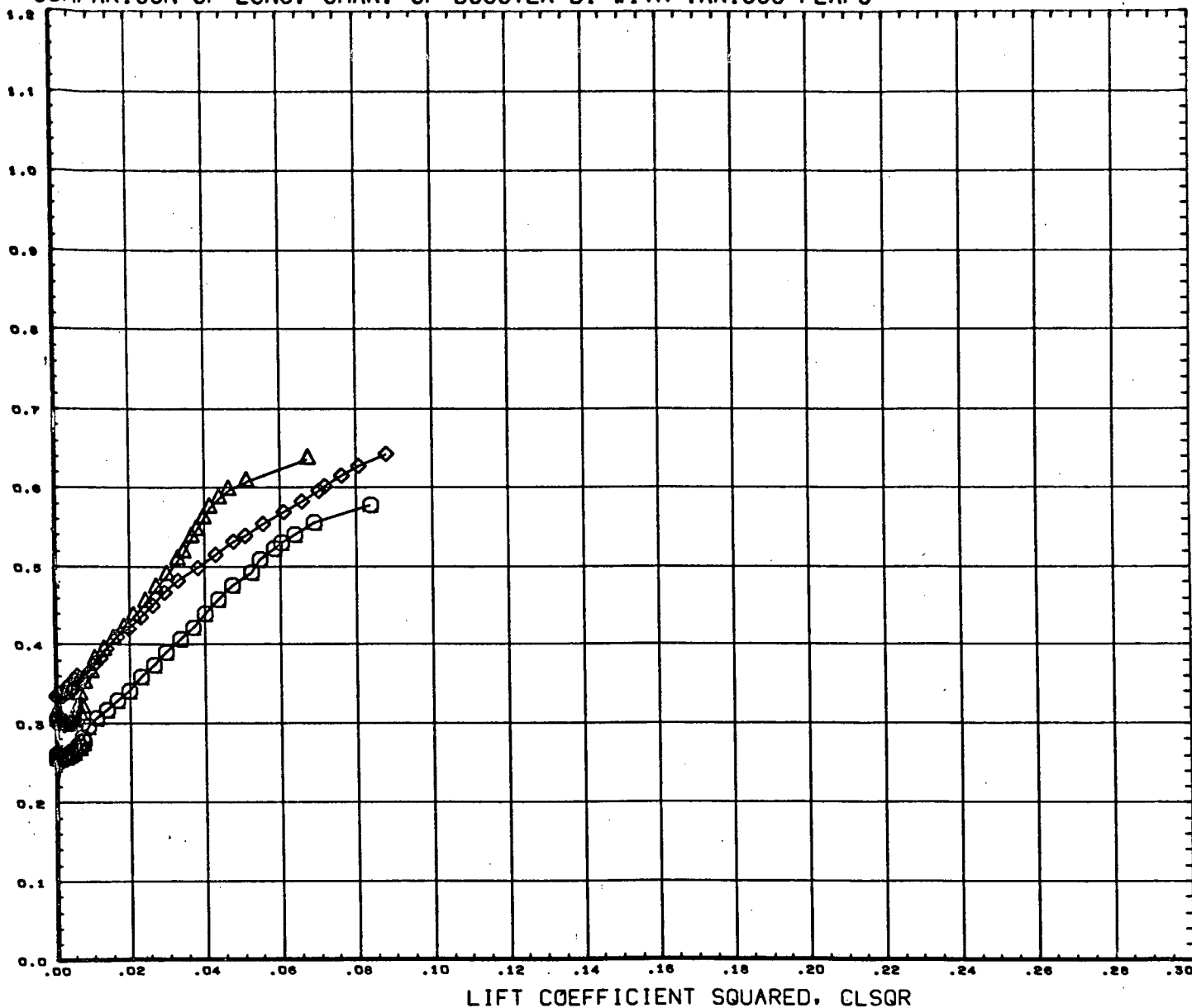
MACH 2.50

PAGE 630

C.9

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS

FOREBODY DRAG COEFFICIENT, CDF



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

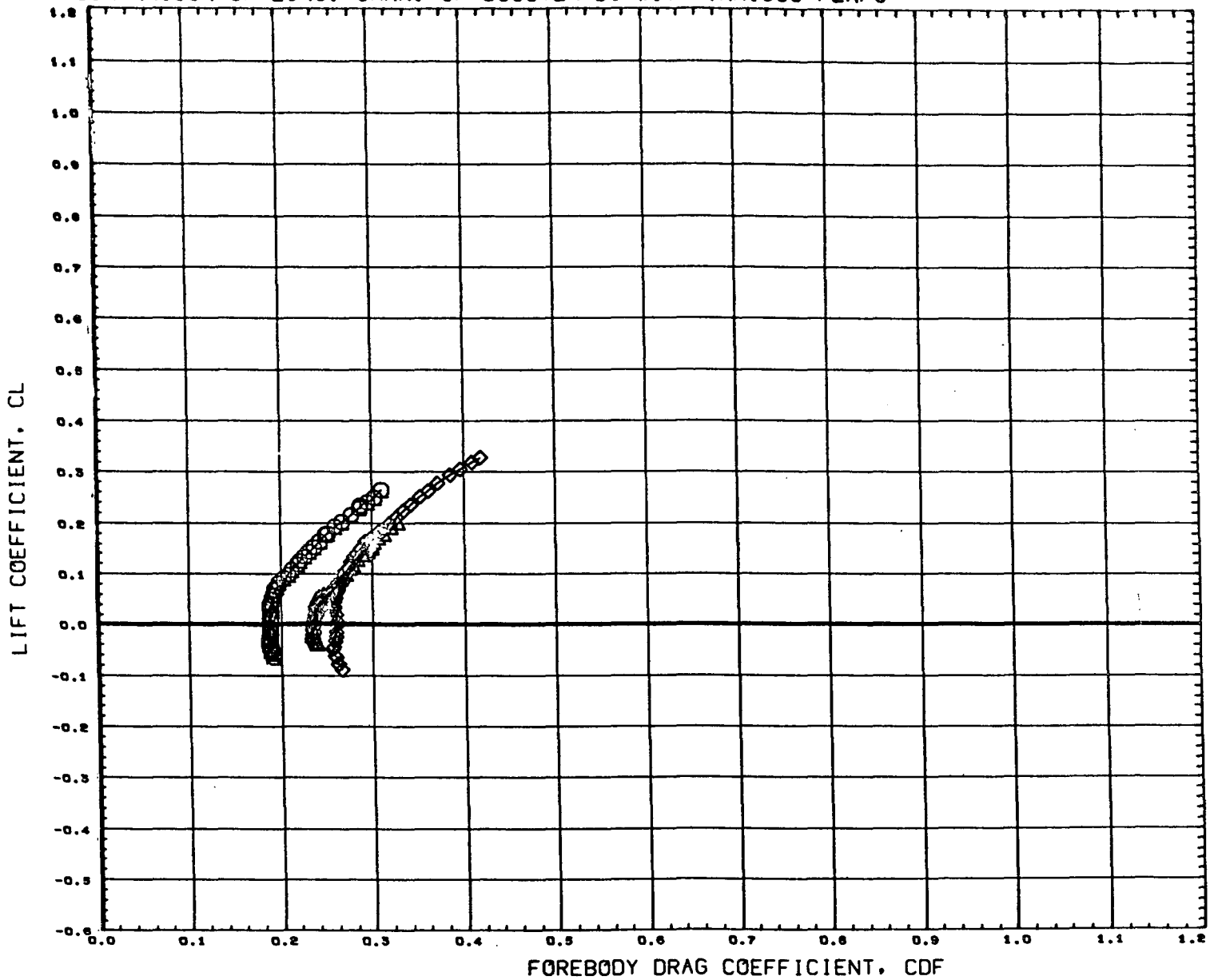
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 631

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

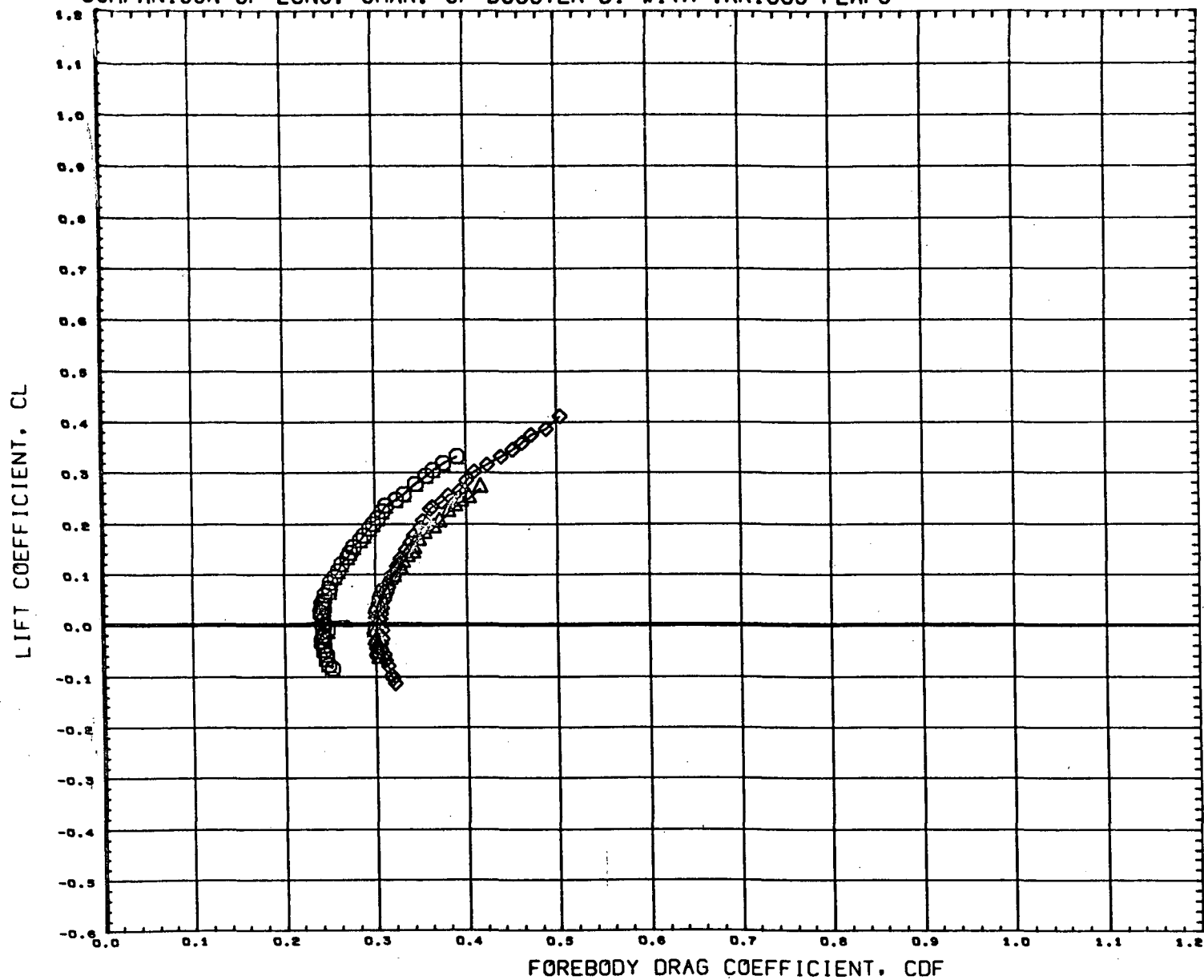
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0080	SCALE

MACH .65

PAGE 632

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

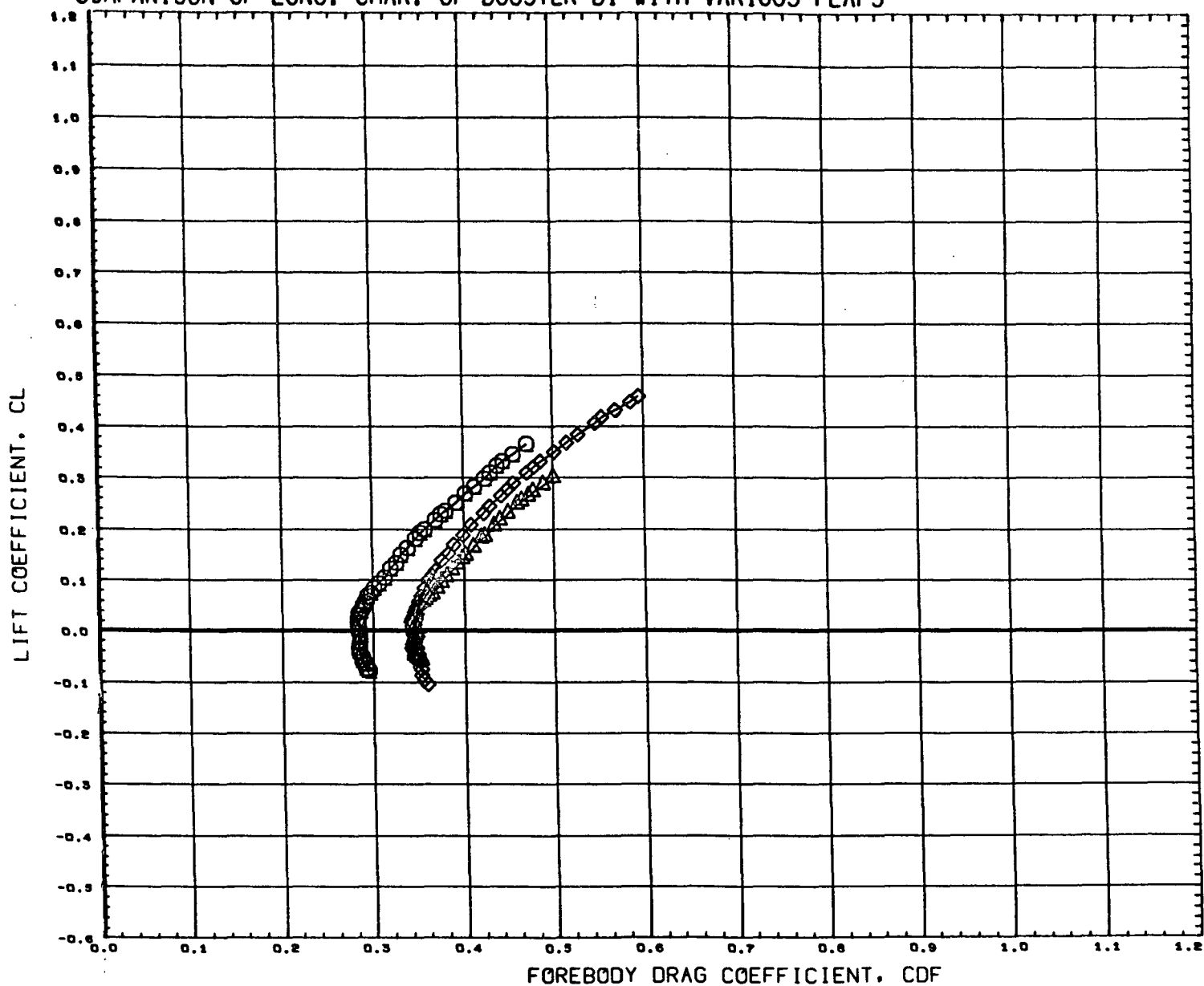
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

.94

PAGE 633

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

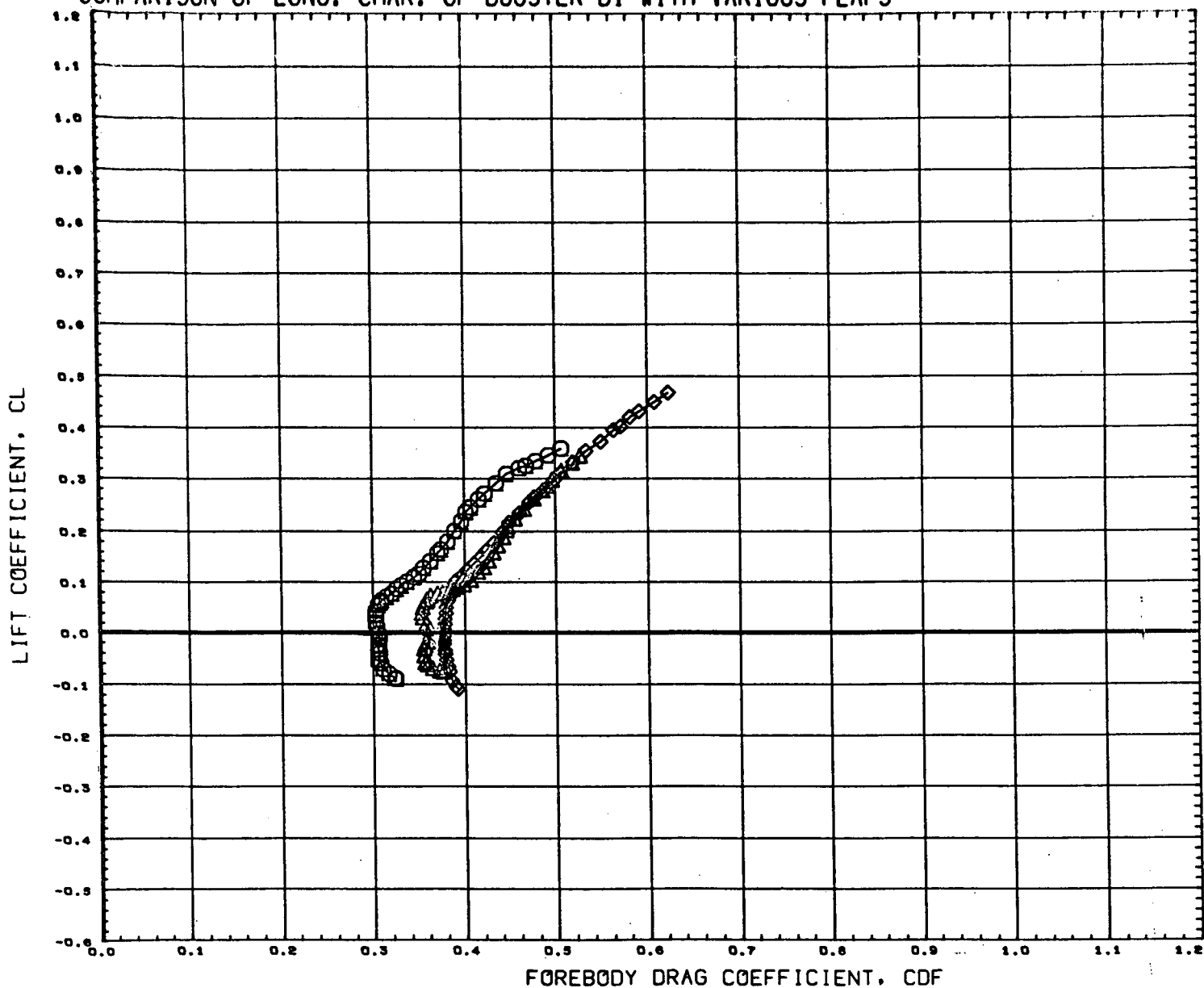
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 634

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS

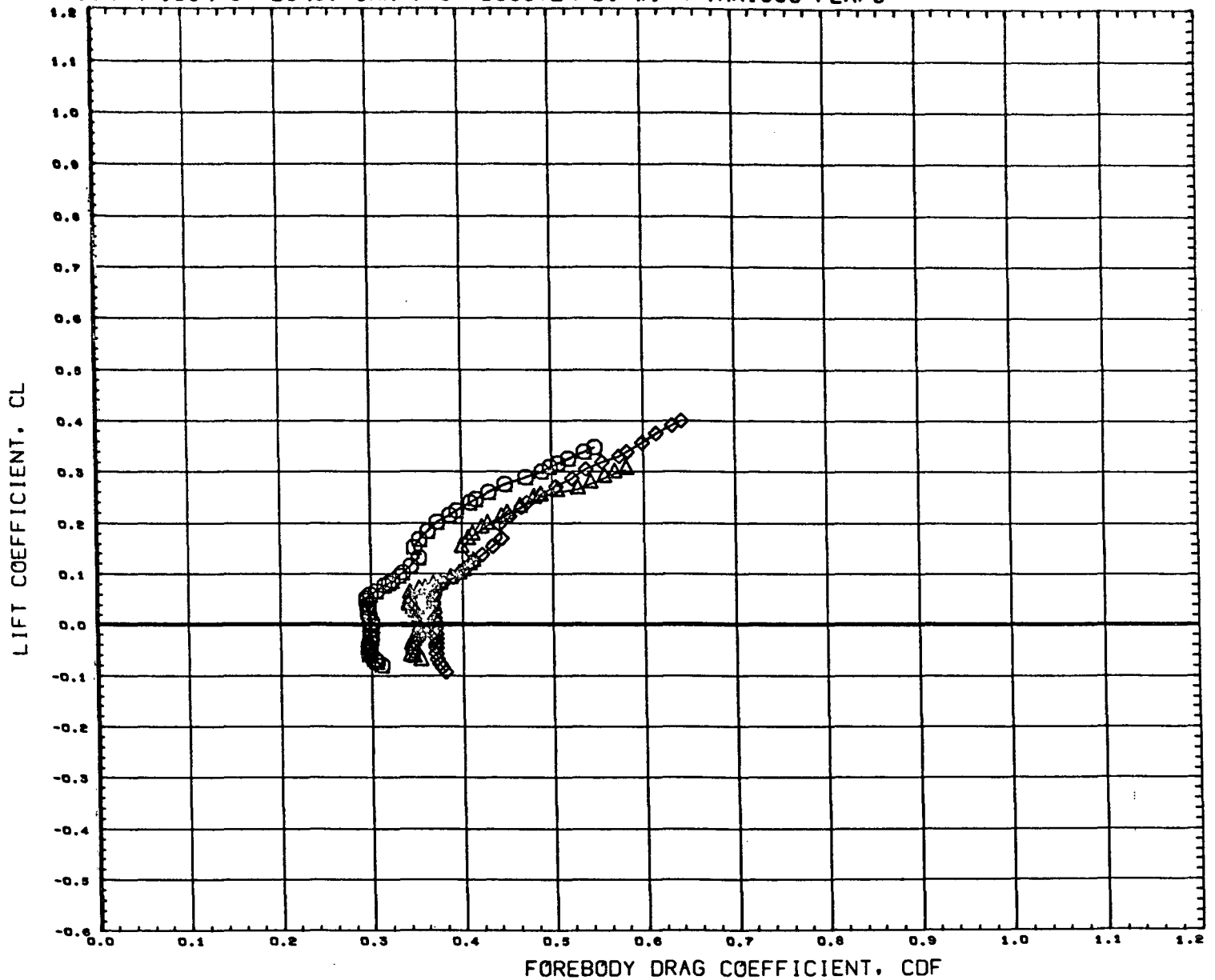


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLAPS	REFERENCE INFORMATION		
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6	0.000	75.000	SREF	3155.3040	30.FT.
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7	0.000	75.000	LREF	609.5004	IN.
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2	0.000	75.000	BREF	862.0004	IN.
				XMRP	751.0004	IN.
				YMRP	0.0000	IN.
				ZMRP	0.0000	IN.
				SCALE	0.0060	SCALE

MACH 1.51

PAGE 635

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

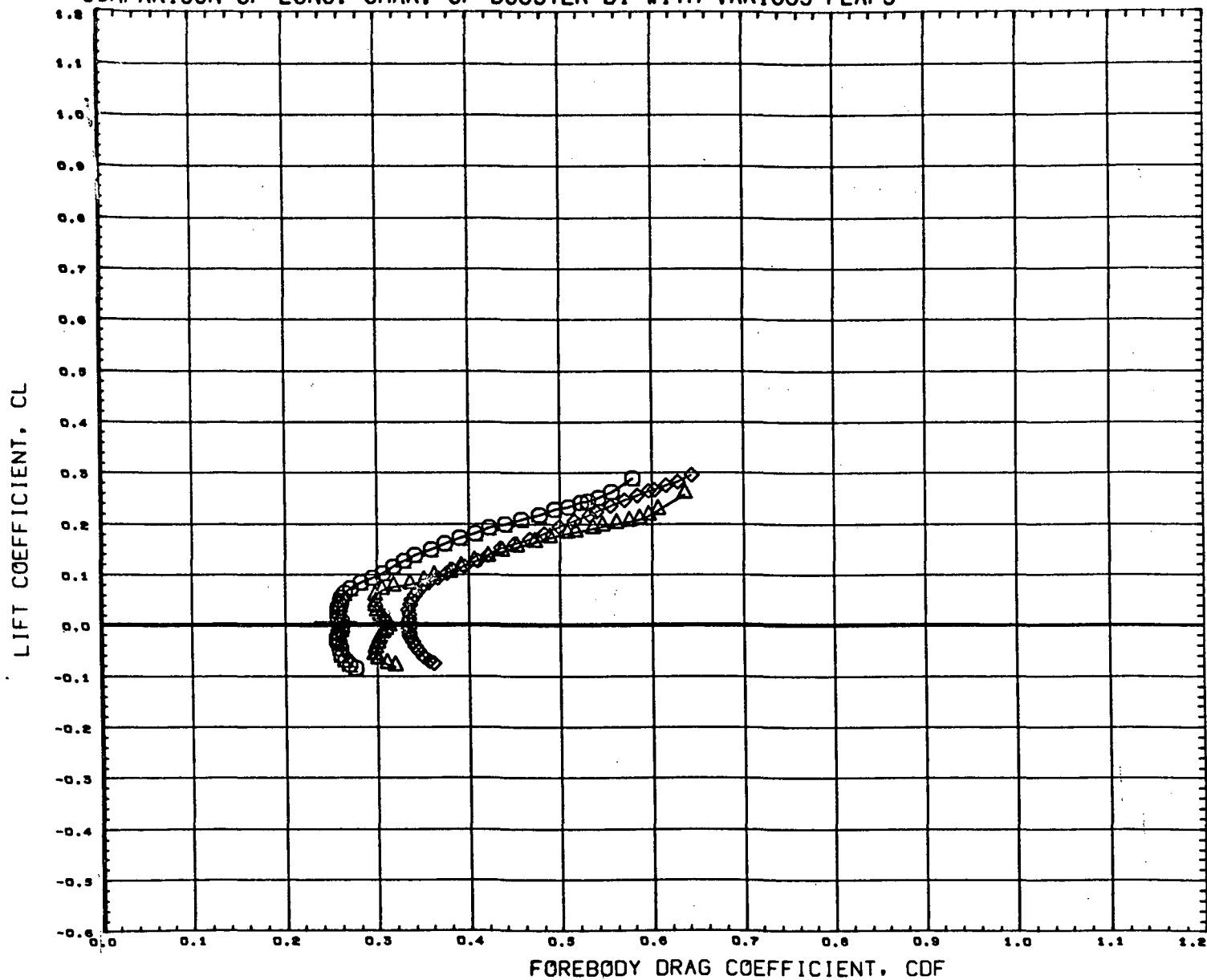
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3195.3040	SQ.FT.
LREF	609.9004	IN.
BREF	862.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 636

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

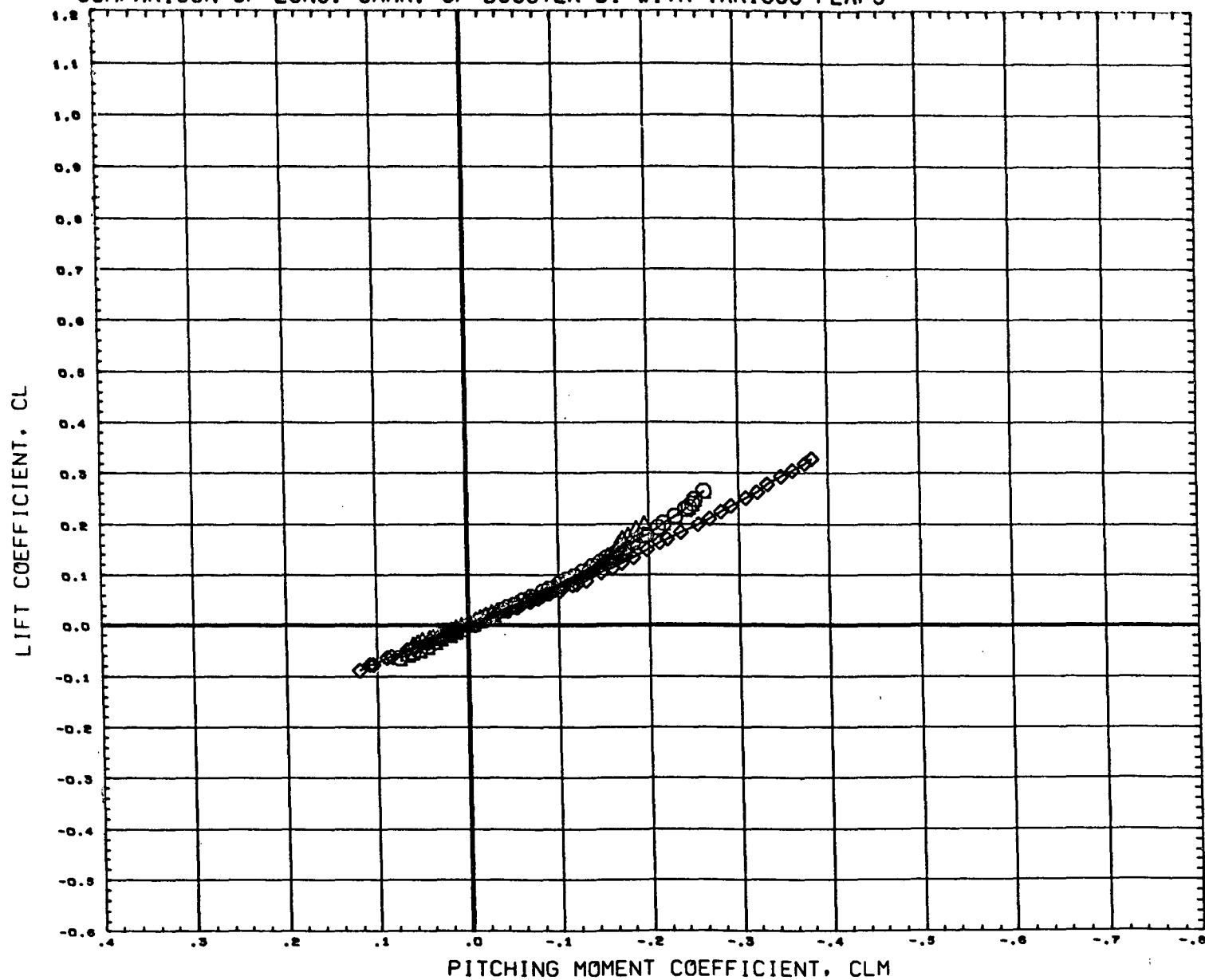
REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH

4.47

PAGE 637

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS

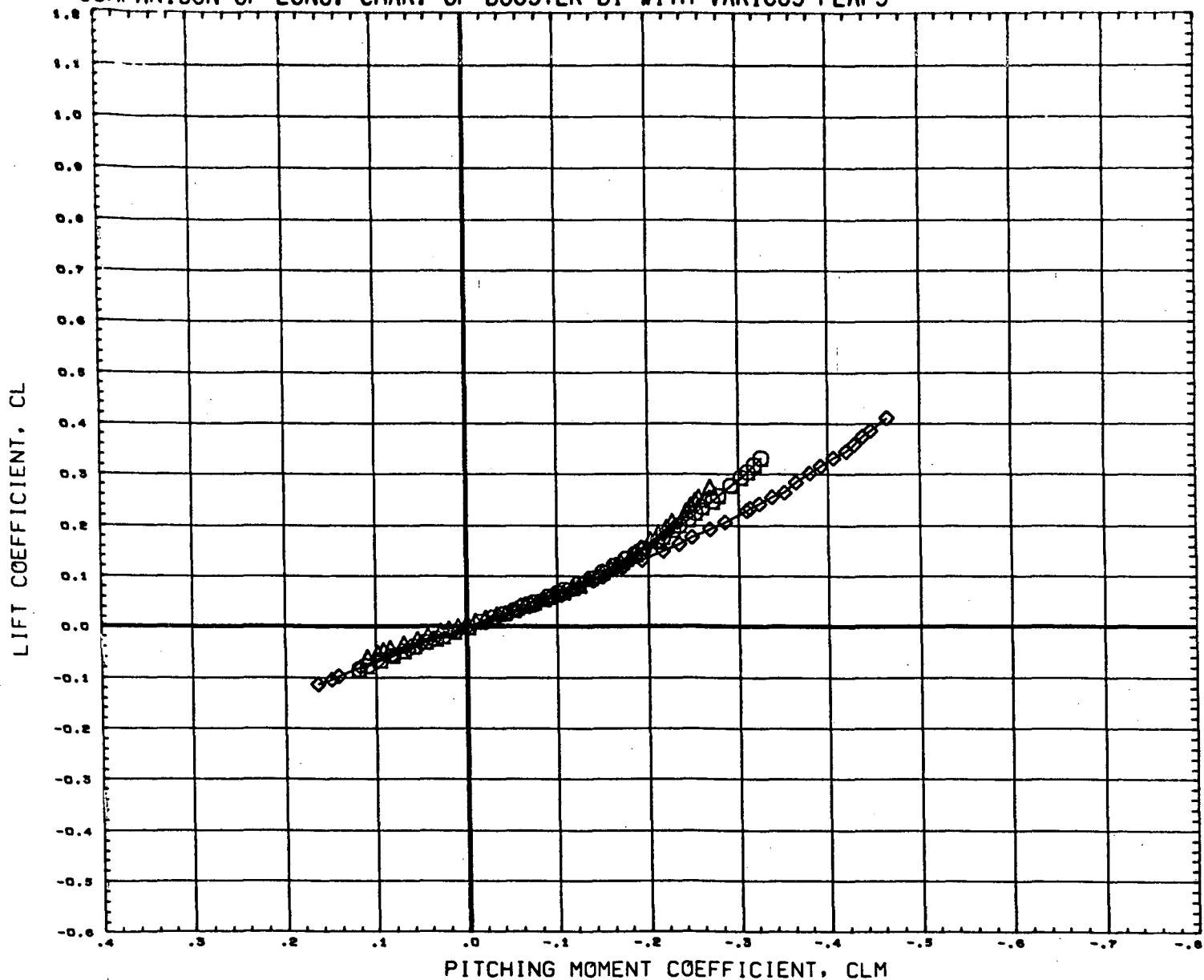


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLAPS	REFERENCE INFORMATION	
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6	0.000	75.000	SREF	3155.3040 SQ.FT.
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7	0.000	75.000	LREF	609.5004 IN.
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2	0.000	75.000	BREF	882.0004 IN.
				XMRP	731.0004 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0060 SCALE

MACH .65

PAGE 638

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

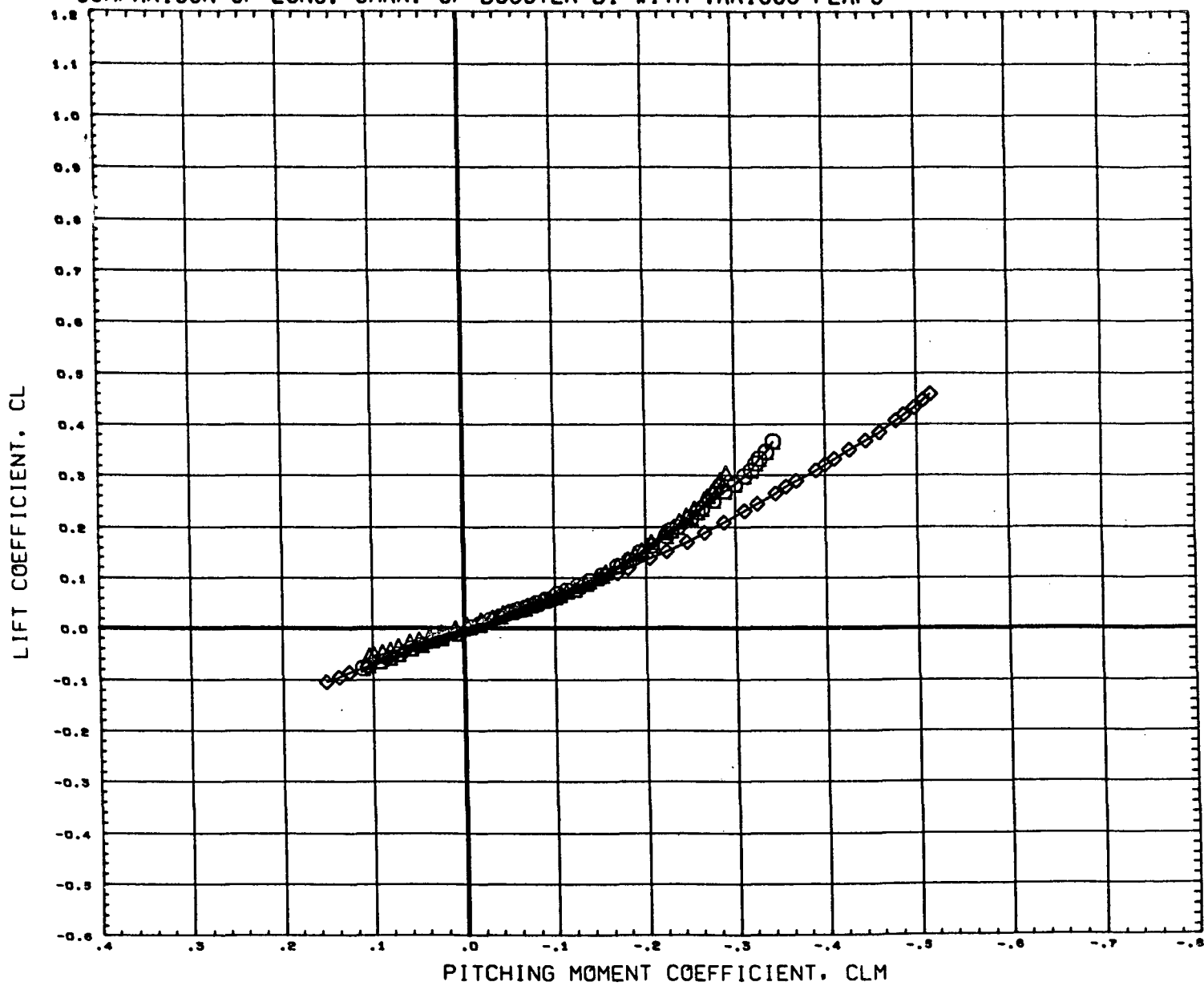
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	682.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH .94

PAGE 639

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

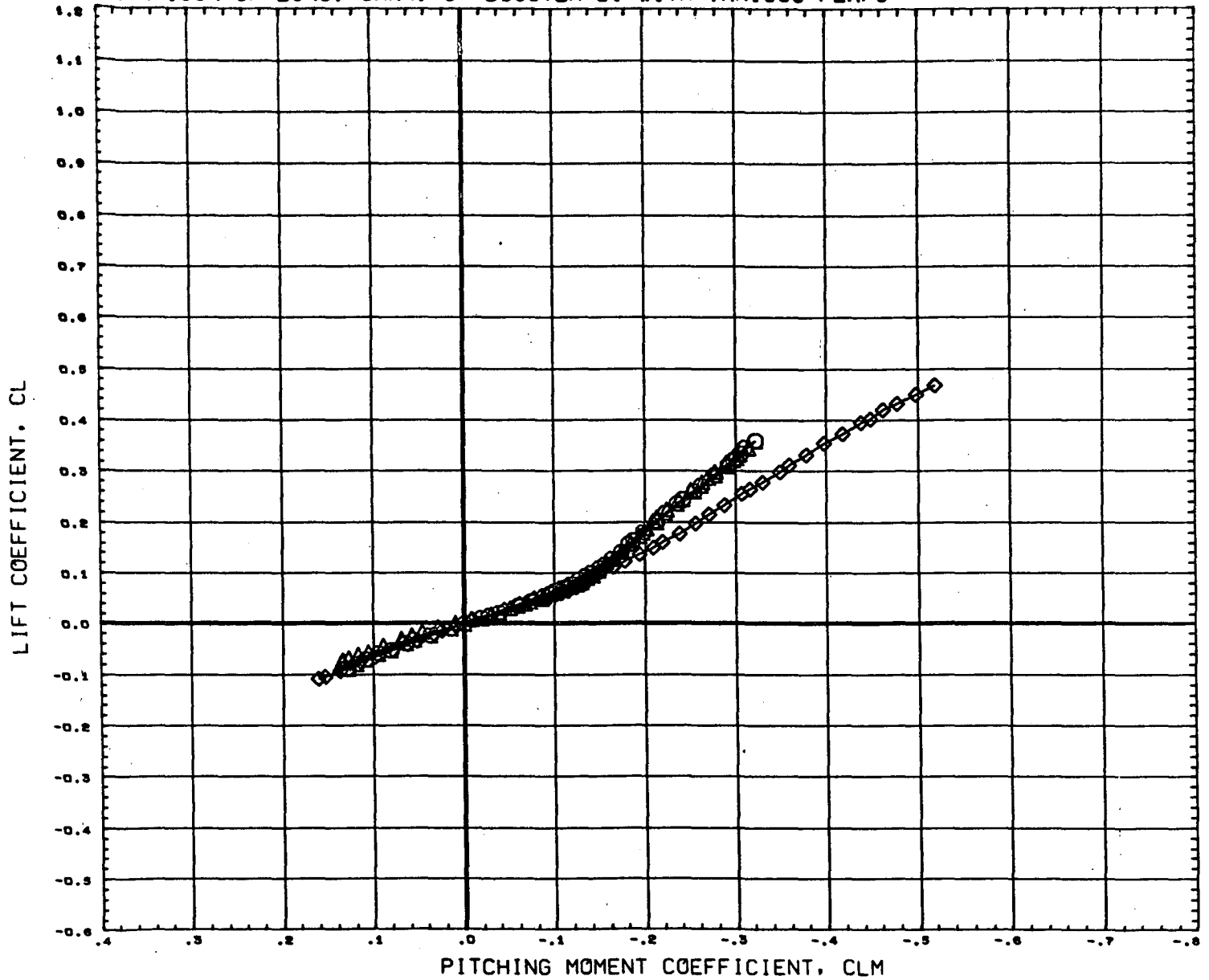
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	809.9004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 1.09

PAGE 640

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS

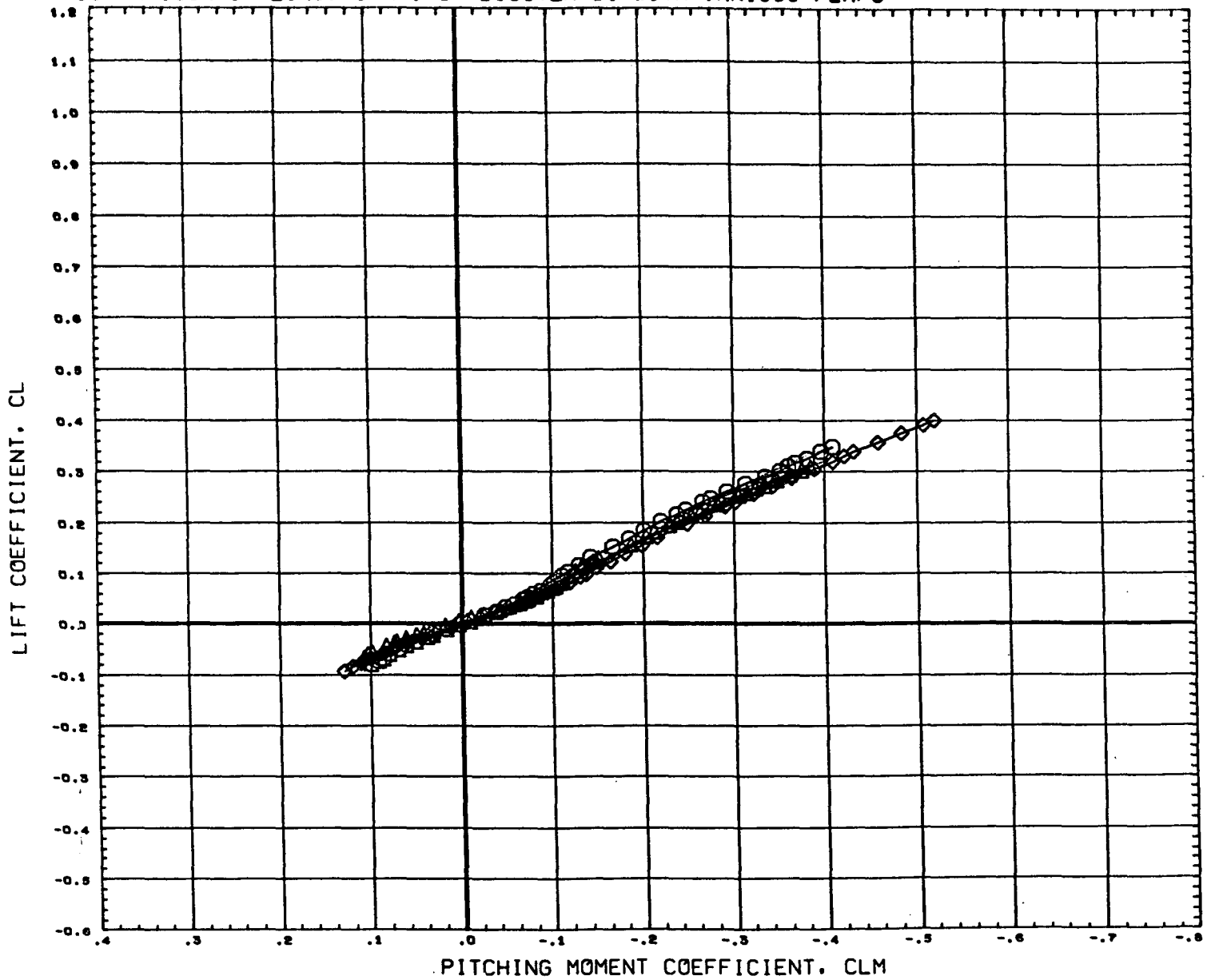


DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	FLAPS	REFERENCE INFORMATION	
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6	0.000	75.000	SREF	3155.3040 SQ.FT.
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7	0.000	75.000	LREF	609.5004 IN.
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2	0.000	75.000	BREF	882.0004 IN.
				XMRP	731.0004 IN.
				YMRP	0.0000 IN.
				ZMRP	0.0000 IN.
				SCALE	0.0060 SCALE

MACH 1.51

PAGE 641

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D6
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D7
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B1D2

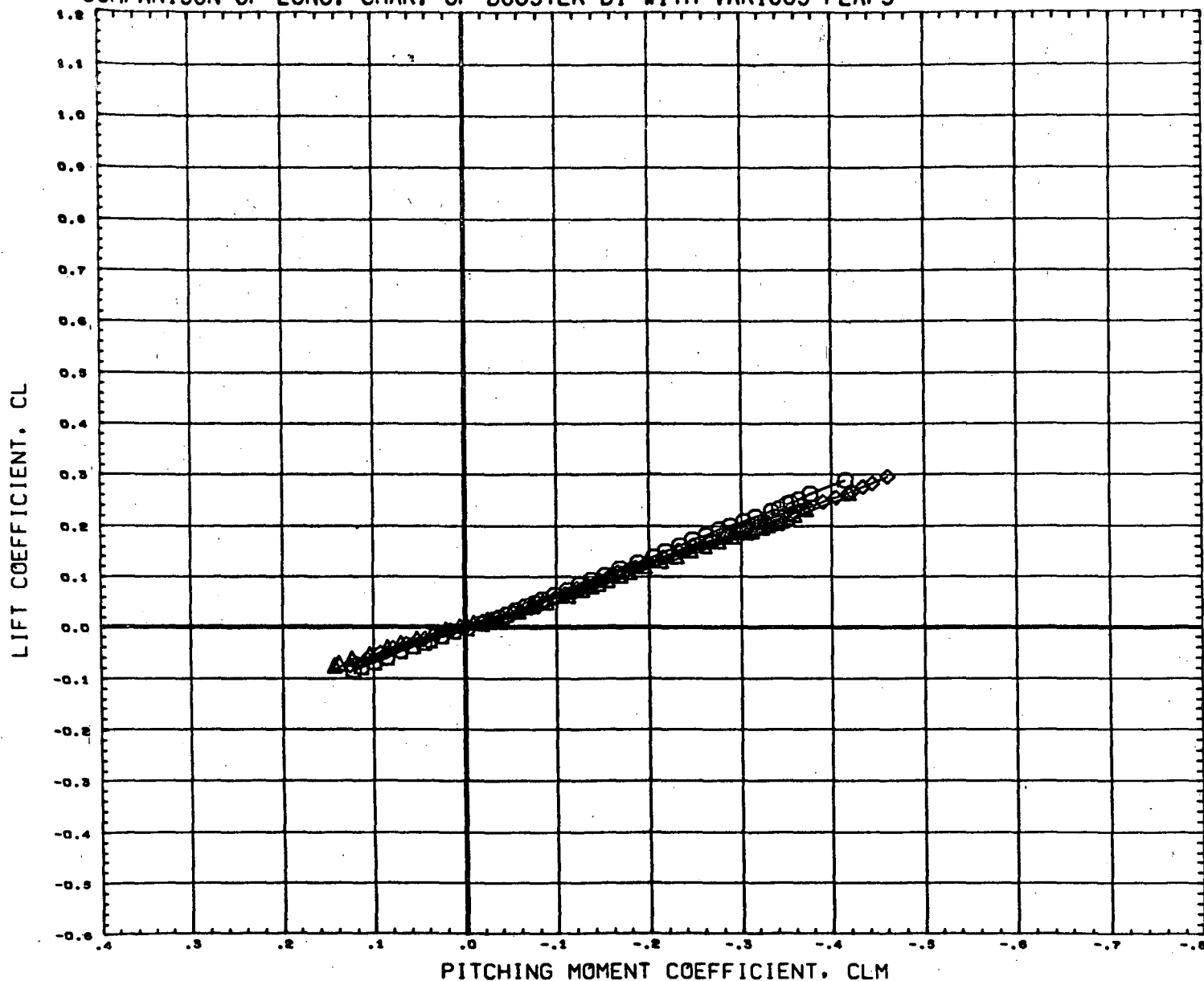
BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	882.0004	IN.
XMRP	731.0004	IN.
YMRP	0.0000	IN.
ZMRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 2.50

PAGE 642

COMPARISON OF LONG. CHAR. OF BOOSTER B1 WITH VARIOUS FLAPS



DATA SET SYMBOL	CONFIGURATION DESCRIPTION
(CD7811)	MDAC S-222 BOOSTER ALONE (NOM. CG) B106
(CD7812)	MDAC S-222 BOOSTER ALONE (NOM. CG) B107
(CD7808)	MDAC S-222 BOOSTER ALONE (NOM. CG) B102

BETA	FLAPS
0.000	75.000
0.000	75.000
0.000	75.000

REFERENCE INFORMATION		
SREF	3155.3040	SQ.FT.
LREF	609.5004	IN.
BREF	662.0004	IN.
XHRP	731.0004	IN.
YHRP	0.0000	IN.
ZHRP	0.0000	IN.
SCALE	0.0060	SCALE

MACH 4.47

PAGE 643